STAFF REPORT - Use Permit
Environmental Impact Report

Application Information

Owner:	**Forward Inc./Republic Services**
Applicant:	**Forward Inc./Republic Services**
File Number:	**PA-1800090/PA-0800105**
Location:	**Located 2 miles south of Arch Road, on the west side of Austin Road (southwest of Stockton)**
Address:	**9999 South Austin Road, Manteca**

General Plan:	**A/G; OS/RC**	Community:	**None**
Zoning:	**AG-40**	APN's:	**201-060-01;02;03;05** **181-150-07;08;09;10**
Project Size:	**17 acres**	Parcel Size:	**751 acres**
Water Supply:	**Well**	Sewage Disposal:	**Septic**
Storm Drainage:	**On site**	100-Year Flood:	**Yes (portions)**
Williamson Act:	**No**	Supervisorial District:	**1**
Staff:	**John Funderburg**	CEQA Determination:	**Supplemental Environmental Impact Report**

Project Description

This project involves the processing of a Use Permit Application and Environmental Impact Report to expand the existing landfill disposal footprint from approximately 355 acres to 372.3 acres. The proposed expansion area includes two areas within the currently permitted landfill boundaries; approximately 8.7 acres in the northeast corner of the site and approximately 8.6 acres in the south area. The acreage added in the south area is gained by shifting the existing disposal footprint north and realigning the South Fork of Littlejohns Creek to the southern and eastern boundaries of the site. The proposed expansion areas are not under a Williamson Act Contract. All the additional expansion acreage is within the boundary facilities currently permitted under Use Permit application No. UP-00-0007. (Use Type: Major Impact Services)

These changes are described in detail in Chapter III, Project Description of the Final SEIR.

Recommendation

Certification of the Supplemental Environmental Impact Report (SEIR) and approval of the Use Permit.

Referrals and Replies

The application referrals were mailed on May 17, 2018, with responses due by June 12, 2018. The referral agencies were also sent copies of the Notice of Preparation (NOP) for the SEIR and Notice of Availability (NOA) of the Draft SEIR. The NOP and DSEIR responses are contained in the Final SEIR.

AGENCY	REFERRAL RESPONSE	NOP RESPONSE	DSEIR RESPONSE
Environmental Health	July 25, 2018	August 17, 2018	November 6, 2018
Pacific Gas & Electric – Land Management	July 23, 2018		
Ag Commissioner			
Manteca School District			
Public Works (Solid Waste)			November 6, 2018
Public Works	July 24, 2018		
Air Pollution Control District		July 17, 2018	November 2, 2018
Council of Governments			July 26, 2018
County Sheriff			
Stockton Airport			
O.E.S.			
US Fish and Wildlife			
Fish & Game Region-2			
City of Stockton -Community Development		June 11, 2018	
City of Stockton – Public Works		October 23, 2018	
Airport Land Use Commission		June 14, 2018	November 2, 2018
F.A.A.			
Stockton Metropolitan Airport		June 12, 2018	
Precissi Flying Service			
C.R.W.Q.C.B.		June 7, 2018	
Caltrans District 10			
Assessor			
Lathrop-Manteca Fire Dist.			
Farm Bureau			
Department of Toxic Substances Control			
Dept. of Transportation, Div. Of Aeronautics			October 25, 2018
Environmental Protection Agency			
Public Utilities Commission			
Kathy Perez			
CA Recycle & Recovery Department		June 18, 2018	October 22, 2018
CA Highway Patrol			
State Lands Commission			
CA Water Resources Department			
F.E.M.A			
Delta Commission			
Department of Conservation			
Native American Heritage Commission		May 29, 2018	
Central Valley Flood Protection Board		May 21, 2018	
Sierra Club		July 26, 2018	
California Pilots Association		July 23, 2018	
CA Dept. of Corr. and Rehab.			November 1, 2018

A legal ad for the public hearing was published in the **Stockton Record** on May 6, 2019.

161 public hearing notices were mailed on May 3, 2019.

Project Location

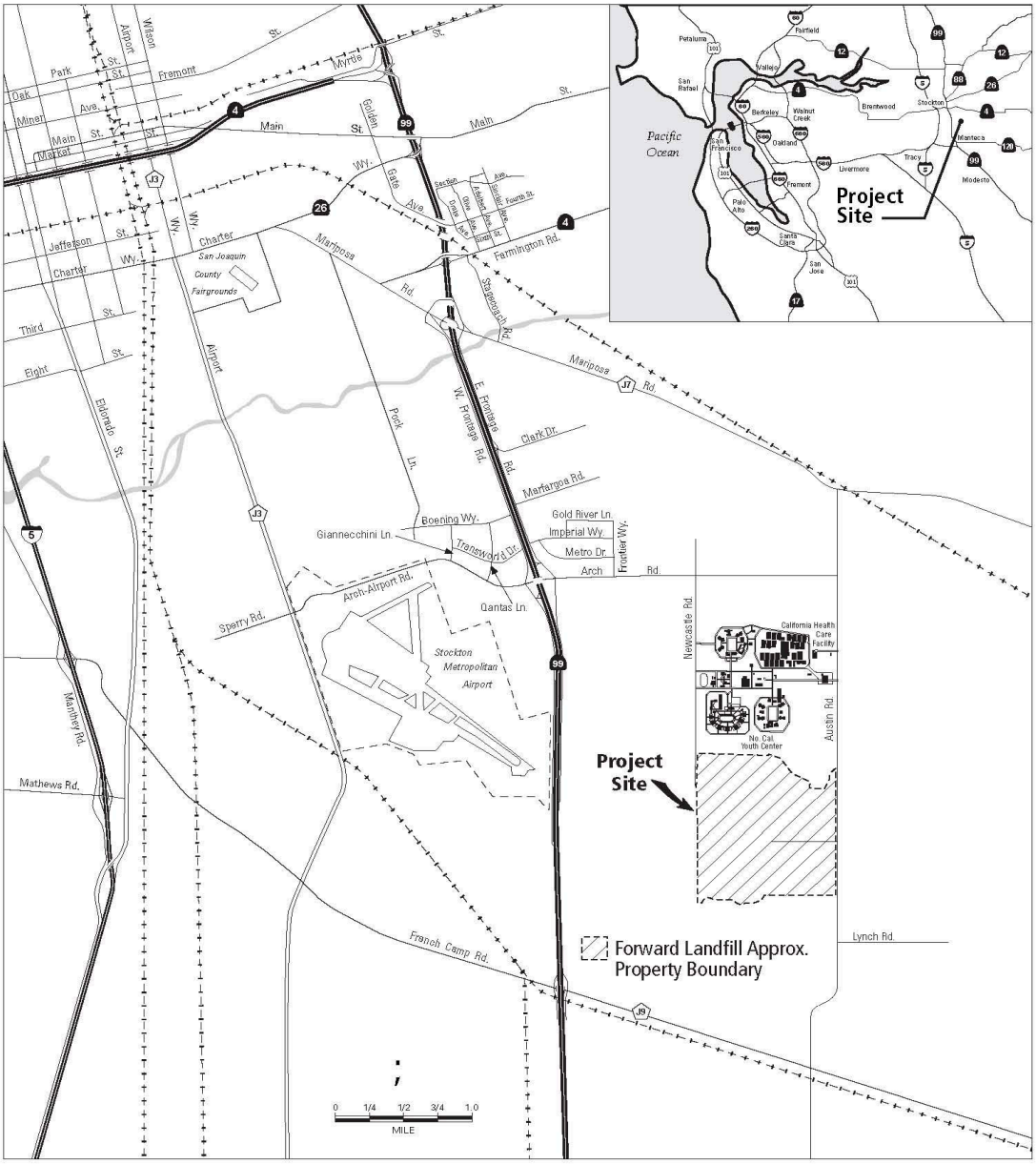

Figure III.C-1

Project Location

Source: Grassetti Environmental

Existing Uses and Site Facilities

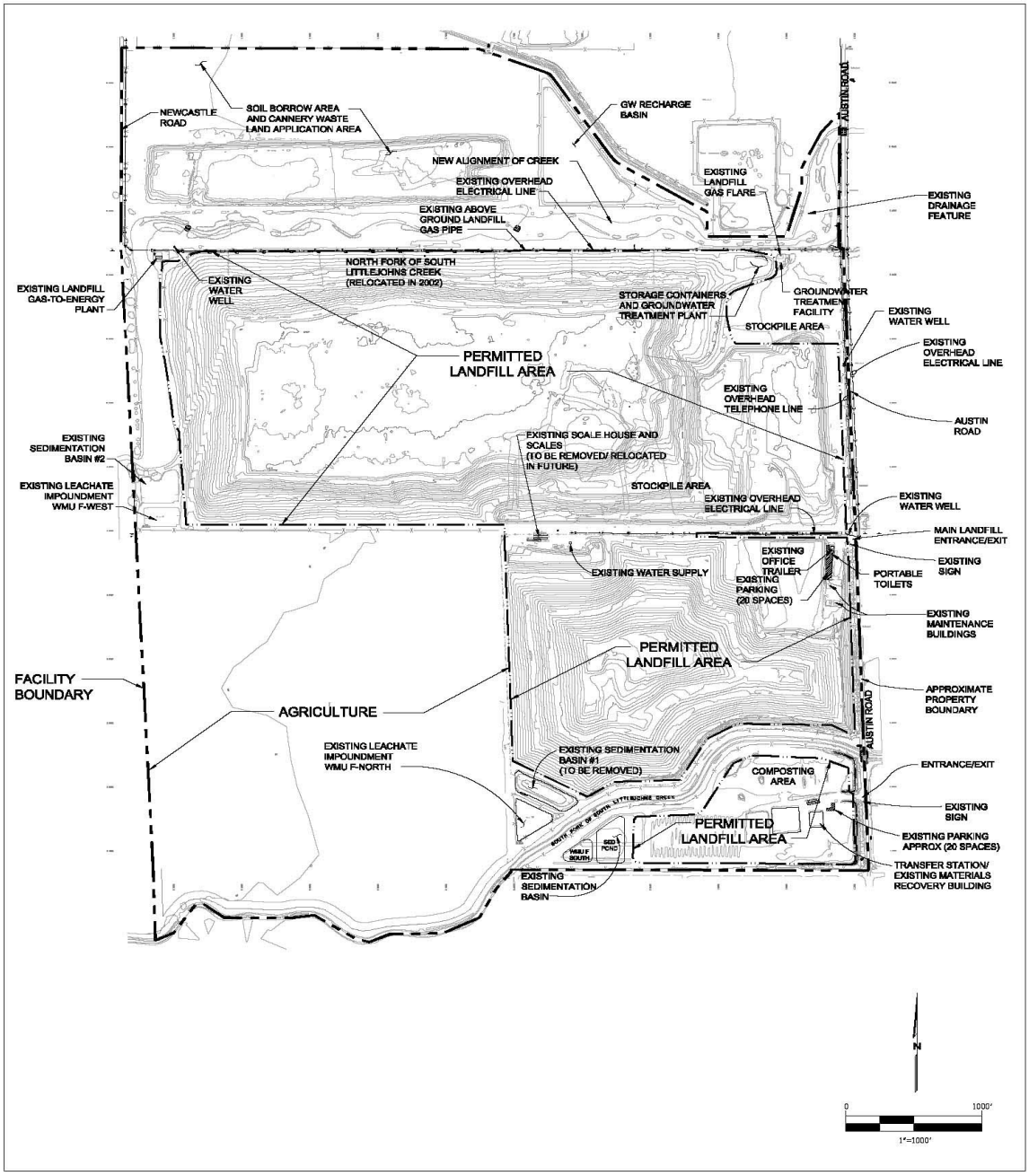

Figure III.C-2

Existing Permitted Uses and Site Facilities

Source: Tetra Tech/BAS, Inc.

Site Plan (Expansion Areas)

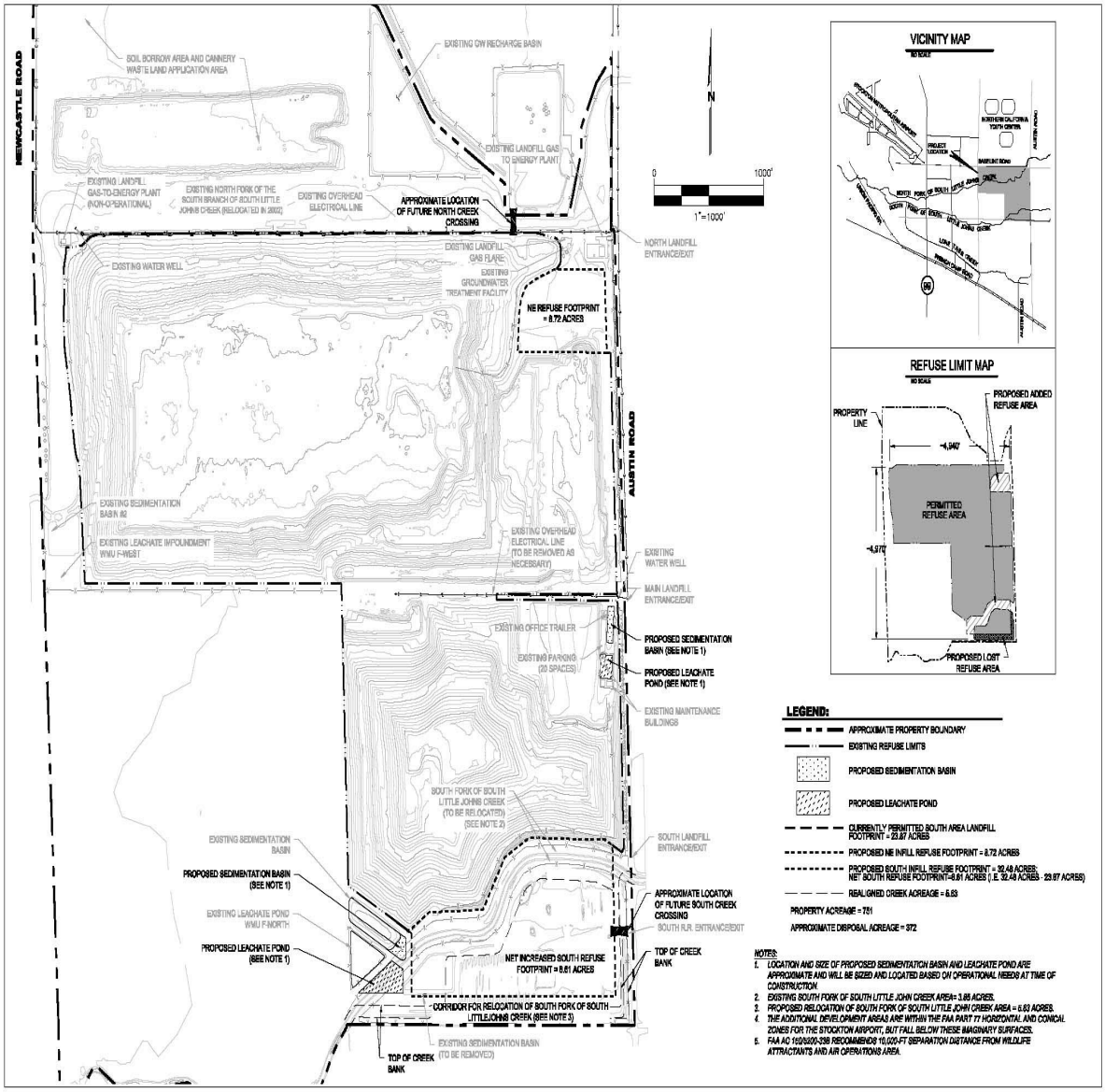

Figure III.C-4

Site Plan

Source: Lewis Engineering

Analysis – Environmental Impact Report

Certification of the Final Supplemental Environmental Impact Report

Based upon a preliminary environmental determination by staff that the project had the potential to result in potentially significant adverse environmental impacts, a Supplemental Environmental Impact Report (SEIR) was prepared by Grassetti Environmental Consulting. The project that is the subject of this SEIR is for a 17.3 acre landfill expansion located within the existing disturbed area of the landfill and will add 8.1 million cubic yards of disposal capacity.

The SEIR addressed the following issues: land use, agricultural resources, bird hazards, transportation, air quality/odors, and greenhouse gases, noise, aesthetics, biological resources, cultural resources, hazards and hazardous materials, hydrology, water quality, and utilities and service systems. The SEIR identified the following significant and unavoidable adverse impacts:

- Project traffic would contribute to unacceptable Levels of Service at the following intersections under 2035 cumulative conditions:
    - SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
    - SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
    - SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
    - SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

  Because no mitigation would be feasible at these intersections, this impact would be significant and unavoidable.
- The project would contribute to a cumulatively significant increase in air pollutant emissions.
- The increase in extent and mass of the proposed project would constitute a significant visual impact (from 2013 FEIR).
- The project would result in significant and unavoidable project-generated traffic noise on Austin Road.
- The project's truck traffic would contribute to significant and unavoidable cumulative traffic noise on Austin Road.

Each of these issues for which the significant and unavoidable adverse impacts were identified above is discussed in Attachment "A" of the Staff Report. Based upon these identified impacts, a Statement of Overriding Considerations has been prepared for the project and is included in Attachment "A" of the Staff Report.

Findings and Statement of Overriding Considerations- Attachment "A"

Pursuant to CEQA Guidelines Section 15093, Statement of Overriding Considerations, CEQA requires decision makers to balance, as applicable, the economic, legal, social, technological or other benefits of a project against any significant and unavoidable environmental impacts when determining whether to approve the project. If the specific economic, legal, social, technological or other benefits of the project outweigh the significant and unavoidable impacts, then those impacts may be considered "acceptable" (CEQA Guidelines Section 15093(a)).

When significant impacts are not avoided or lessened, CEQA requires the agency to state, in writing, the specific reasons for considering a project acceptable. Those reasons must be based on substantial evidence in the Final EIR or elsewhere in the administrative record (CEQA Guidelines Section 15093(b)).

Here, the Community Development Department and in accordance with the CEQA Guidelines has included for the Planning Commission's consideration as Attachment "A" – Statement of Overriding Considerations for the 2018 Forward Landfill Infill Expansion Project (the "SOC"). The Final EIR and SEIR have identified the following Project impacts to be significant and unavoidable even after incorporation of all feasible mitigation measures: (1) cumulative traffic impacts at four intersections[1]; (2) cumulative traffic noise impacts for some residents along roadway segments on Austin Road, Arch Road and French Camp Road west of Austin Road; and (3) cumulative air quality impacts due to the emission of ozone precursors and PM_{10} that would be considered a cumulatively considerable contribution to the existing significant cumulative air quality impact in the San Joaquin Valley Air Basin. The Final EIR (where applicable) and Final SEIR provide detailed information regarding these impacts.

The SOC balances the these impacts with the specific overriding economic, legal, social, technological and other benefits (overriding considerations). Based on that balancing, staff has found that there are grounds for a finding that the Project benefits outweigh its significant adverse environmental impacts and, therefore, the impacts are considered acceptable and warrant the adoption of Attachment "A", Section 8 and approval of the Project.

The specific benefits of the Project considered in the SOC include, but are not limited to;

- Cost-effective, long term stable disposal capacity for municipal solid waste;
- Support industrial and commercial growth in the County and surrounding communities by providing regional, centrally located and accessible Class II disposal capacity, assist in meeting the current California state legislative mandate for recycling or beneficially reusing the non-hazardous waste stream;
- Combined resource recovery and disposal operation to reduce or eliminate the need for solid waste to be delivered to multiple locations; and
- Provide disposal capacity for disaster related debris, such as from fires, floods, and earthquakes.

Mitigation Monitoring Plan

Also, as required by CEQA, the Planning Commission, in adopting the findings for overriding considerations, must also adopt a Mitigation Monitoring and Reporting Program ("MMRP") for the project. The MMRP, which is incorporated by reference and made a part of these findings, meets the requirements of Section 15097 of the CEQA Guidelines by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the project.

Whenever these findings specifically refer to and adopt a mitigation measure that will avoid or mitigate a potentially significant impact, that specific mitigation measure is also made a Condition of Approval of the 2018 Forward Landfill Infill Expansion Project.

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[1] Unacceptable Levels of Service at the following intersections under 2035 cumulative conditions (1) SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours), (2) SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours), (3) SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours), (4) SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

Public Review

In accordance with the requirements of CEQA and the CEQA Guidelines GC 15163(c), a supplement to an EIR shall be given the same kind of notice and public review as is given to a Draft EIR under Section 15087. As such, a Notice of Preparation ("NOP") of a Draft Supplemental Environmental Impact Report ("Draft SEIR" or "DSEIR") was filed with the State Clearinghouse ("SCH") Office of Planning and Research ("OPR") (SCH# 2008052024) and distributed for public and agency review. The NOP review period was issued on May 15, 2018 with a 30-day review period ending on June 14, 2018. Comments received on the NOP were included in Appendix "B" of the Draft SEIR.

On September 5, 2018, the Community Development Department released for public review a Draft Supplemental Environmental Impact Report. The required 45-day public review and comment period on the Draft SEIR began on September 5, 2018 and closed on October 19, 2018. Pursuant to GC 15105 of the CEQA guidelines, the Community Development Department staff extended the public review and comment period until November 2, 2018. Hearings to receive comments on the Draft SEIR were held for the public on October 17, 2018 and the Planning Commission on October 25, 2011. Comments received from the public and the Planning Commission on the Draft SEIR are included in the Final SEIR. All oral and written comments received during the review period for the Draft SEIR have been responded to and included in the Final SEIR, "Section VII". Where necessary, the text of the draft document has been amended as a result of the public review process.

The Final SEIR was distributed on April 18, 2019 to the Planning Commission, responsible agencies, and all agencies and persons commenting on the Draft EIR.

Determination of adequacy of the final SEIR

The only determination to be made by the Planning Commission in order to certify the SEIR is whether or not it is adequate as described in Section 15151[2] of the CEQA Guidelines. This section states in part "an EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible."

It is the Community Development Department's determination that the SEIR is adequate pursuant to Section 15151 of the CEQA Guidelines. The document thoroughly discusses all potentially significant environmental issues, contains all sections required by law, and adheres to all review periods and time requirements under CEQA Guidelines. All issues raised during the review of the draft document are thoroughly discussed in the Final SEIR.

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[2] **GC 15151. Standards for Adequacy of an EIR**

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

Analysis – Use Permit

Project Background (History)

In 2012 Forward Inc. proposed an expansion project of the landfill operations onto an adjoining 184.0 acre parcel located southwest of the existing operations. The parcel at that time in 2012 was under a Williamson Act Contract and was also located within close proximity to the runway of the Stockton Metropolitan Airport. For this project to proceed it would have required a four-fifths vote of the Board of Supervisors to override the Airport Land Use Commission finding that this proposed expansion project was not in conformity with the 1993 Stockton Metro Airport Land Use Plan. This proposed expansion project in 2012 failed to achieve the required four-fifth override vote of the Board of Supervisors. However, the Board of Supervisors did vote to certify the "2013 Forward Landfill Expansion Final Environmental Impact Report (FEIR)", as having been prepared in accordance with the California Environmental Quality Act (GC 15151) and adequate for use for decision-making purposes.

In 2014 a new project area for expansion was proposed within the permitted landfill area and did not include the previously proposed horizontal expansion of landfilling operations onto the adjacent 184.0 acre parcel and was not subject to a Williamson Act Contract. As determined by the Environmental Review officer a Supplemental Environmental Impact Report (SEIR) was to be prepared to review any potentially significant impacts. On March 27, 2015, the applicant "Forward Inc." requested that the Community Development Department place the proposed 2014 project on hold.

On February 14, 2018, "Forward Inc." requested that the previous project on hold be reinitiated. That is the project as discussed in this Staff Report and herein and is now referred to as the "2018 Expansion Project". The 2018 Expansion Project proposes an infill expansion of 17.3 acres within the boundaries of the existing disturbed landfill area. Additionally, the 17.3 acre project area being proposed is not under a Williamson Act Contract and will not include landfilling operations onto the adjacent 184.0 acre parcel previously proposed in 2012.

History of Existing Operations

On April 8, 2003, the Board of Supervisors certified Environmental Impact Report no. ER-00-0002 and approved Use Permit application no. UP-00-0007 for the existing operations, which consolidated the former Austin Landfill and Forward Landfill sites into one operation. The consolidation of these two landfills permitted for landfilling activities on 567.0 acres and also includes a transfer station/resource recovery facility and composting area.

On January 6, 2011, the Planning Commission approved Use Permit application no. PA-1000245 to allow for an amendment of Forward Landfill's existing Solid Waste Facility Permit Boundaries only. There was no increase in current permitted daily tonnage or land refuse foot print as part of the approval of this permit Under Title 27 CCR (California Code of Regulations), CEQA review (California Environmental Quality Act) was required to amend the facilities boundary. Although Forward cannot expand its landfill operations onto the 184.0 acres, it must as the operator of a solid waste facility identify the current facility boundaries. The facilities boundary adjustment included 184 acres and is southwest of the existing operations. As conditions of approval for this project no landfill activities, waste placement, disposal, composting, storage of equipment, or soil borrowing can occur on the 184.0 acres.

On October 6, 2011, the Community Development Department approved Site Approval application no. PA-1100111 for a Landfill Gas to Energy Plant. The plant was constructed in 2013 in the northeast portion of the landfill site, and is currently operated by Ameresco.

Surrounding Land Uses and Project Setting

Surrounding land uses and the project setting are described in the SEIR under Section IV., Page IV. A-1, Setting. In summary, adjacent land uses to the west, south, and east of the landfill consist of agriculture and scattered residences. To the north is the Northern California Youth Correctional Center and the Northern California Women's Facility, is located farther north of the project site, at the southwest corner of Arch and Austin Roads. The California Health Care Facility (a state prison hospital) is located adjacent to the Forward landfill on a portion of the existing Northern California Youth Correctional Center.

The Burlington Northern and Santa Fe Intermodal Facility, a 470-acre train/truck cargo transfer and storage facility, is located approximately one mile northeast of the site, along the Burlington Northern and Santa Fe railroad main line.

The nearest runway of the Stockton Metropolitan Airport is approximately one mile west of the existing Forward Landfill.

Discussion of Project Issues

A Supplemental Environmental Impact Report (SEIR) was prepared for this project (State Clearinghouse No. 2008052024). The SEIR discussed all potentially significant environmental impacts. The following discussion of project impacts is limited to issues that were raised in written and oral comments, and issues that the SEIR identified as potentially significant impacts that could not be mitigated to less than significant.

In the following discussion, potential environmental impacts are categorized as either **no impact**, **less than significant** or **significant and unavoidable**. The **less than significant** category includes impacts for which no mitigation is necessary and impacts that are reduced to less than significant with mitigation measures. The **significant and unavoidable** category includes potentially significant impacts (including cumulatively significant impacts) that could not be mitigated to less than significant.

Land Use Plans, Policies and Zoning

Pursuant to Development Title Section 9-115.490, a landfill operation is classified under the Use Type-Major Impact Services. Major Impact Services are defined as land intensive activities that must be located away from residences or concentrations of people due to the nature of the operation's impacts. Landfill operations are a conditionally permitted use in AG-40 zone subject to an approved Use Permit application. The entire project site has a zoning classification of AG-40 (General Agriculture, 40-acre minimum). The existing Forward Landfill operation is classified under the Major Impact Services use type and currently permitted under San Joaquin County Land Use Permit No. UP-00-0007, granted by the Board of Supervisors in April 2003.

The SEIR determined that the 2018 Expansion Project is consistent with all County land use plans and 2035 General Plan goals and policies regarding Public Health and Safety (SEIR Page IV., E-1).

As such, the SEIR determined that the expansion project will have **no impact** on the existing land use plans, zoning, and existing policies**.**

Agricultural Resources and Prime Farmland

The currently proposed expansion areas (approximately 8.6 acres in the southeast of the existing landfill and approximately 8.7 acres in the northeast of the existing landfill) are not currently in agricultural use and are not considered Prime agricultural land, as defined by the State of California (Government Code Section 51201).

Prime agricultural land is defined by Government Code Section 51201 as any of the following:

- Land qualifying for a Storie Index rating of 80-100;
- Land qualifying for a Natural Resource Conservation Service land use capability Class I or Class II rating;
- Grazing land capable of supporting at least one animal unit per acre;
- Agricultural land that has returned at least $200/acre for three of the past five years, or will normally return at least $200/acre.

The 8.6 expansion area in the southeast of the existing landfill consists of creek channel and existing permitted landfill operations (including the composting facility), does not provide viable grazing land because of its small size and isolation from other grazing land, and has not been used for agriculture for many years. The approximately 8.7 acres in the northeast of the existing landfill is classified as Urban on the Prime Agricultural Land and Important Farmland Map, and is not viable as grazing land because of its small size and isolation from other grazing land, and has not been used for agriculture for many years.

As such, the SEIR determined that the expansion project will not covert existing agricultural land to a non-agricultural use and there will be **no impact** or a loss of prime farmland.

Bird Hazards

The SEIR identified that the proposed 2018 Expansion Project could increase bird hazards for aircraft at the Stockton Metropolitan Airport. Both portions of the 2018 Expansion Project (8.6 acre expansion area and 8.7 acre expansion area) would have higher surfaces that could increase the flying altitude of any birds attracted to the landfill, and thus could create a hazard to aircraft. The maximum elevation of the proposed expansion areas would be approximately 190 feet above mean sea level (MSL), but, lower than the approved permitted maximum height of 210 feet MSL for the existing Forward Landfill operations.

Forward Inc. is required to mitigate for the bird hazard impact and would be subject to the mitigation measure below to discourage and monitor bird populations and comply with regulatory requirements related to bird hazards.

The following procedures are proposed to reduce bird hazards:

- Existing measures to discourage birds from the landfill will be continued. Surface area of ponds will be limited to the extent feasible.
- The project sponsor will continue to monitor bird populations. If follow-up surveys show an increase in bird populations, the project sponsor will increase mitigation measures such as covering the fill areas as soon as possible and using noise-makers and other measures as necessary to discourage birds from the site, until bird population levels return to the level found in pre-project surveys. Use of noise-makers would be limited to daylight hours.

- As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. *Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018.
- As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not pose a bird hazard to aircraft, and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. *Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018.
- The project sponsor shall comply with the requirements applicable to existing landfills contained in Federal Aviation Administration (FAA) Advisory Circulars 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports,* and 150/5200-34A, *Construction or Establishment of Landfills Near Public Airports*. Requirements in Advisory Circular 150/5200-33B applicable to the proposed project include notification of the FAA and airport, and a demonstration that the landfill is designed and operated so it does not pose a bird hazard to aircraft.
- In addition to the procedures proposed as part of the project identified above, the project sponsor will abide by any additional reasonable and feasible measures designated by the Stockton Metropolitan Airport or the FAA to mitigate bird population impacts that could be caused by the proposed project.

Forward Inc. notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. The effectiveness of the gull control program at the existing landfill in avoiding bird hazards to aircraft is discussed in the SEIR, and the demonstration that the site will not pose a bird hazard to aircraft was placed in the operating record by letter on July 6, 2018.

Also, a biologist from the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services also visited the project site to evaluate aviation-related wildlife hazards and current management practices, including the bird control program discussed above. After the visit, USDA Wildlife Services made recommendations for wildlife management at the landfill. In addition to compliance with FAA rules and regulations, the recommendations included:

- Review of all new landscaping/development plans for wildlife hazards
- Water management to eliminate standing water from the landfill whenever possible
- Vegetation management to eliminate brushy areas along ditches and streams
- Operation of wildlife hazard management patrols
- Continuation of the current falconry-based bird control program at the landfill
- Coordination with the U.S. Fish and Wildlife Service to develop a permit to reduce hazards to aircraft from specific threatened and endangered species and species of special concern

The additional Mitigation Measure below, incorporates the recommendations of USDA Wildlife Services, but excludes the USDA Wildlife Service's recommendations for special-status bird species and the removal of prey base for predatory birds and mammals.

The following program will be implemented as an additional measure to reduce bird hazards:

The project sponsor shall continue to implement an annual gull control program as described in Rolph A. Davis, Ph.D. LGL Limited environmental research associates, Demonstration of the Continued Effectiveness of the Bird Control Program at the Forward Landfill, Manteca, California – 2016-2017, August 7, 2017. The gull control program shall include monitoring of gulls feeding at or using the landfill, as described below.

- Monitoring shall be conducted by an independent third-party firm or individual with experience in the field of bird hazards to aircraft safety.
- The third-party monitoring shall consist of a minimum of six site visits, each lasting four hours, every month from October through May. To the extent possible, the site visits shall be announced in advance. During each month:
    - two of the visits shall begin at dawn,
    - two shall occur during mid-day,
    - one shall occur late in the afternoon covering the period after the falconer has finished for the day, and
    - one shall occur on Sunday when the landfill is closed to ensure that gulls are not accessing the site when staff are absent.
- Site visits in addition to the minimum of six monthly visits described above shall be made if necessary to verify the criteria for failure described below.
- The results of the monitoring shall be documented in an annual report.
- Landfill staff shall participate in monitoring so that action can be taken as soon as a potential problem is identified.

The control program shall be considered to be failing and will require upgrading if any of the following situations occur:

- Gulls land at the active disposal area, begin to feed, and are able to feed for 10 minutes or more, on two or more occasions during a week.
- Flocks of gulls begin loafing on other parts of the landfill and are not scared away by the control program within 30 minutes, on more than two occasions during a week.
- Gulls begin to circle over the landfill, including adjacent creek areas, and are not removed by the falcons. If this behavior continues over a period of one week, then it indicates that the birds are likely getting food at the landfill.

In the event that the bird control measures proposed as part of the project, described above, in combination with the gull control program described in this mitigation measure, are found to be ineffective in reducing the numbers of flocking birds by the criteria described above, the project sponsor shall implement one or more of the following:

1. The falconry program shall be intensified to ensure that there are no gaps in coverage and that additional falcons are available for those days when it may be necessary to fly the falcons often.

2. The operator shall introduce a more comprehensive pyrotechnic-based control program to supplement the falconry program. Many landfills successfully control gulls using only a

pyrotechnic-based program. The pyrotechnics program shall provide coverage when the falcons were not on site during the week and on weekends. The pyrotechnics program shall also cover areas remote from the active area to remove loafing gulls.

3. With the exception of removal of prey base for predatory birds and mammals, and actions involving special-status bird species, the operator shall implement the recommendations for vegetation, wildlife, and water management (Contained in Odell, Russel W., Senior Wildlife Biologist, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services California, Letter to John Funderburg, Principal Planner, San Joaquin County Community Development Department, August 29, 2011),

Significance After Bird Hazard Mitigation Implementation measure

Implementation of the procedures discussed above to discourage and monitor bird populations and comply with regulatory requirements related to bird along with the annual gull control program would reduce bird hazard impacts to a **less than significant** level**.**

The Conditions of Approval for the proposed project shall also include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Also as a condition of approval Forward Inc. shall undertake regular, ongoing communication with Airport staff regarding the airports Wildlife Hazard Assessment and wildlife management program, to address changes in wildlife presence or behavior observed at the landfill.

Night Lighting

The SEIR determined that night lighting at the proposed expansion area could interfere with airport landing lights. The following mitigation measure below would reduce night lighting impacts to a **less than significant** level.

The project sponsor shall include downward shielding of new landfill lighting and shall abide by any additional reasonable and feasible measures, including reducing or eliminating lighting during foggy conditions, that are designated by the Federal Aviation Administration (FAA) and Stockton Metropolitan Airport to mitigate lighting impacts that could be caused by the proposed project.

This mitigation measure will also be added as a condition of approval if the project is approved.

Transportation and Circulation

The street network providing access and circulation to the Forward Landfill project site consists of Austin Road, Mariposa Road, Arch Road, East French Camp Road, and State Route Highway 99. There are no pedestrian facilities or sidewalks within the project area except a section of Arch Road on the north side between Fite Court and Logistic Drive.

The SEIR determined that a traffic study would be required. A Transportation Impact Analysis (TIA) was conducted for the project by PHA Transportation Consultants (PHA 2018), which was reviewed by the Public Works Department traffic engineers, and is included in Appendix E of the SEIR.

The traffic impacts were assessed by evaluating the effects of the proposed expansion project on the existing transportation circulation system's capacity to accommodate projected traffic levels. In addition, the traffic study evaluated the operation of intersections most likely to be adversely affected by the proposed project.

Finally it studied cumulative impacts which could result from the combined effects of existing conditions, approved projects, the proposed project, and other likely future projects.

In summary, the Transportation Impact Analysis identified the following impacts as significant and unavoidable:

- Project traffic would contribute to unacceptable Levels of Service at the following intersections under 2035 cumulative conditions:
    - SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
    - SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
    - SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
    - SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

Because no mitigation would be feasible at these intersections, this impact would be **significant and unavoidable**. These impacts are discussed and addressed in the attached Statement of Overriding Considerations*, Attachment "A"*.

Newcastle Road Access to Landfill

In response to comments on the DSEIR and comments raised during the circulation of the Notice of Preparation for the 2018 Project, landfill access via Newcastle Road was analyzed as an alternative to the existing entrance on Austin Road. Newcastle Road is a two-lane rural road with a north-south alignment. It extends south from Arch Road for about 1.5 miles, where the paved road ends. An unpaved extension continues south approximately another 1/4 mile where it terminates just north of Littlejohns Creek. Several residences front the western side of Newcastle Road, and the N.A. Chaderjian Youth Correctional Facility and the O.H. Close Youth Correctional Facility are Camp located east of Newcastle Road.

It was determined the use of Newcastle Road for landfill access would substantially increase truck traffic on that road, which would shorten the pavement life considerably and would require installation of a second entry station with truck scales. In addition, Newcastle Road currently terminates north of Littlejohns Creek. Truck access to the Forward Landfill would require construction of a creek crossing, which could have adverse environmental impacts to the streambed. Further, both landfill expansion areas are distant from Newcastle Road, requiring lengthy internal access roads and additional truck travel compared to the existing access. For these reasons, and because the existing project driveway operates, and would continue to operate, at a satisfactory level of service, use of Newcastle Road for access to the landfill does not appear to provide a better alternative. Because this alternative access is not proposed, **no impact** would occur.

Noise

The SEIR determined that increased traffic noise and cumulative noise impacts, would be significant. No mitigations are available for this impact other than reducing nighttime project operations. As such, this is a **significant and unavoidable impact**. These impacts are discussed and addressed in the attached Statement of Overriding Considerations, *Attachment "A"*.

Air Quality/Odors/Climate Change

The SEIR determined that refuse-hauling activities would create potential air quality impacts. As required by CEQA Guidelines, an Air Quality Analysis was conducted by SCS Engineers on May 18, 2018 and was peer reviewed for this SEIR by the RCH Group's air quality specialists (See Appendix F of the SEIR). The air quality analysis was conducted in accordance with published guidance, including the San Joaquin Valley Air Pollution Control District's (SJVAPCD) *Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI and the Air Quality Impact Analysis and Air Toxics Risk Assessment* (*AQIA*).

In summary, the additional 8.1 million cubic yards would result in an increase in fugitive emissions from the landfill surface and an increase in emissions from landfill gas control devices due to the increase in landfill gas collected. The project would also result in an increase above the current annual level of traffic-related trips, which would result in an increase in emissions associated with traffic-related trips.

Also, initial construction activities for the expansion area would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM_{10}) and equipment exhaust emissions. As shown below, all criteria pollutant emissions generated by construction activities would be well below the SJVAPCD's air quality thresholds of significance for construction emissions.

Table IV.D-3: Maximum Construction Criteria Pollutant Emissions (tons per year)

Scenario	ROG	CO	NOx	PM10	PM2.5	SOx
Cell Construction (equipment)	0.36	1.34	3.19	0.12	0.12	0.003
Cell Construction (worker trips and other sources)	0.19	0.91	1.80	0.08	0.08	0.000
Cell Construction (dust)	--	--	--	0.62	0.02	--
Creek Movement	0.31	1.74	2.38	0.08	0.08	0.000
Creek Movement (dust)	--	--	--	0.18	0.09	--
Total	0.86	3.99	7.37	1.08	0.39	0.003
CEQA Threshold	10	100	10	15	15	27
Exceeds Threshold	No	No	No	No	No	No

SOURCE: SCS Engineers, 2018

For all construction projects, compliance with SJVAPCD Regulation VIII is required by law. Based on the size of the construction area and proximity to receptors, additional measures may be required, as described within the SEIR (Mitigation Measure D.1.). Therefore, this impact would be reduced to **less than significant**.

Public Health, and Safety

The SEIR determined that spills, collisions, upsets or other accidents at the landfill or during waste transport could cause injury to site workers, the general public, or the environment.

The following procedures are proposed as part of the project:

- The Standard Safe Work Practices listed in the Forward, Inc. Site Health and Safety Program and Contingency Plan will be implemented by the operator.
- The landfill operator will comply with the provisions of CCR Title 27, Section 20590, which requires that O&M personnel wear and use approved safety equipment for personal health and safety
- Landfill access will continue to be controlled to limit unauthorized entry by persons or vehicles.
- The landfill operator will comply with all provision of CCR, Title 27, Division 2, Chapter 3, Subchapter 4, Articles 1-3 that apply to landfill health and safety.

In addition, the following mitigation measure is recommended by the SEIR.

> The San Joaquin County Public Works Department shall approve any new waste transport haul routes to the landfill from major arterials, SR 4, or Highway 99.

Implementation of these procedures and Mitigation Measure would reduce the impact to a **less than significant** level.

Landfill Gases

The production of landfill gases within a landfill is of concern because landfill gas typically consists of 50 percent methane gas, which is flammable when diluted in air to concentrations of 5 to 15 percent. Landfill gas is also of concern because of the hazardous air pollutants carried with the gas (such as the documented VOCs in the area of the Austin Landfill unit).

Uncontrolled landfill gas emissions could cause methane gas buildup that could be ignited by machinery or onsite workers. As such,the SEIR determined that additional landfill gas generated by the 2018 Expansion Project, could increase the potential for explosion hazards.

The SEIR recommended the following mitigation measures below:

- Where required by State and Federal regulations, the landfill gas monitoring, gas control and collection system will be installed, extending to the new areas of the expanding landfill and operating in conformance with applicable regulations.
- The existing gas extraction system, or an equivalent system, will continue to operate.
- Regular gas monitoring will be conducted to prevent landfill gas accumulation in onsite buildings or beneath temporary buildings. The landfill operator will install an automatic combustible gas detection and alarm system for structures at the site.
- The landfill operator will not construct or otherwise locate any structure in an area of known landfill gas build-up.

- All site personnel who work in permanent structures will be trained to use and respond to the landfill gas monitoring and alarm system.

However, the landfill gases impact is still considered **significant and unavoidable** therefore the following additional mitigation measure below is identified:

Additional Mitigation Measure: Landfill gas monitoring shall include the volatile organic compounds in order to determine the amount of contaminant recovery, and control potential exposure to onsite personnel.

Implementation of the above proposed procedures and this additional mitigation measure would reduce the impact to a **less than significant** level because it allows the County and applicant to control potential exposure of personnel to hazardous gases.

Hydrology and Groundwater

The SEIR determined the 2018 project would have the potential to result in significant impacts related to surface or groundwater hydrology and water quality. Without a properly designed landfill cell liner and LCRS installed in the project expansion areas, landfill leachate could percolate through the ground underlying the landfill units and potentially contaminate groundwater. To address this potential impact the expansion areas would have a leachate collection system installed that will meet the federal and state Class II landfill design requirements. The following groundwater quality protection measures are proposed as part of the project (as required under CCR Title 27):

- A pan lysimeter (secondary liner) would be installed under the sump area, as previously required by the Regional Water Quality Control Board "RWQCB".
- The liner and leachate collection system for the two new expansion areas would meet Title 27 requirements and be reviewed and approved by the RWQCB and new WDRs issued, as warranted.
- The regulatory required separation between the liner and groundwater shall be implemented to allow for chemicals in the leachate to attenuate before reaching the groundwater, should the leachate breach the liner and leachate collection system.
- Leak location testing of the liner in each WMU shall be conducted before waste can be disposed in that Unit, as required by the RWQCB.
- If any modifications to the leachate collection system and associated monitoring are required by the RWQCB, the landfill operator shall implement those changes.
- The liner system will be overlain by a protective operations layer consisting of a one-foot thickness of soil and a one-foot thick gravel layer that serves as the leachate collection layer. This two-foot layer will serve to protect the liner system from sharp or jagged materials in the waste.
- The operator will remove any hazardous materials spotted during delivery, thus minimizing the potential for leachate impacts to groundwater if a break occurs in the liner or the leachate collection system.

- Landfill operations and maintenance are designed with appropriate schedules to identify and correct any failures in the leachate collection system.

- In addition, the RWQCB will review the updated Joint Technical Document (JTD), the leachate collection system, and associated monitoring, and could require changes to the planned leachate collection system or monitoring.

Implementation of the described protection measures above, long-term operations and maintenance procedures, obtaining new RWQCB Waste Discharge Requirements, and compliance with RWQCB orders would reduce the impacts related to surface or groundwater hydrology and water quality to a **less than significant** level.

Cultural Resources

The 2018 expansion project involves the realigning the South Fork of Littlejohns Creek to the southern and eastern boundaries of the site and has the potential to affect unknown cultural resources that may exist within the creek area. As such, on August 28, 2018, an updated cultural resources evaluation was conducted as part of this SEIR by Solano Archaeological Services . This evaluation included a records search, field survey, and consultation with local tribal representatives.

The records search was negative for cultural resources within a half- mile radius of the project area. The Native American Heritage Commission Sacred Lands File search, however, identified a Sacred land in the project area that was later defined by Ms. Kathy Perez of the Northern Valley Yokuts Tribe to be an unrecorded prehistoric habitation site situated approximately at the location of the proposed southern landfill expansion site, and possibly along the proposed site of the Littlejohns Creek South Fork realignment. During the survey no cultural materials were identified. Given the 2018 expansion project location with respect to the creek channel, and the input from Ms. Perez that an unrecorded habitation site existed on the southern project site, it is possible that unknown cultural resources may be encountered during project excavation.

Therefore, to reduce any impacts on unknown cultural resources in the area the mitigation measure below and also identified as J.1. in the SEIR is proposed:

An archaeological monitor and a Native American monitor shall be retained to observe project-related ground disturbing activities in order to identify potentially buried resources. In the event that any of the archaeological site indicators described above are found, work should be halted within a zone established by the project archaeologist and Native American monitor until a plan for the evaluation of the resource under CEQA guidelines has been submitted to the appropriate permitting agency for approval.

If any potential cultural resources are encountered during any ground disturbing activities, the following measures shall be implemented:

- If prehistoric archaeological resources are discovered during excavation and construction of the proposed project, the project sponsor along with a qualified archaeologist and Native American monitor shall suspend all work in the immediate vicinity of the find pending site investigation by a qualified archaeologist and a Native American monitor to assess the materials and determine

their significance. If the qualified archaeologist and Native American monitor determine that the find has the potential to be a historical resource per California Register of Historical Resources (CRHR) criteria, the project sponsor shall provide funding and time to allow recovering an archaeological sample or to implement avoidance measures. Work could continue at other locations while archaeological mitigation takes place.

- Evaluative testing, normally consisting of limited hand excavation to retrieve information and materials from the archaeological site, would be needed to demonstrate the eligibility of the resource to be included on the CRHR. If eligibility is established, then a plan for mitigation of impacts to the resource should be submitted to the San Joaquin County Community Development Department for approval before any construction related earthmoving activities are allowed inside the zone designated as archaeologically sensitive by the project archaeologist and Native American monitor. The plan must result in the extraction of sufficient volumes of non-redundant archaeological data so as to address important regional research considerations, must be performed by qualified professionals, and must result in detailed technical reports. Mitigation can take the form of additional data retrieval through hand excavation coupled with archaeological and Native American monitoring of all soils from the archaeologically sensitive zone. Monitoring is aimed at identifying, recording and/or removing archaeological materials and information for analysis, and also serves to limit damage to human remains (non-destructive analysis), a typical component of both seasonal and year-round villages in the valley.

- The project sponsor shall allow only a qualified archaeologist, and a Native American monitor to collect any prehistoric cultural resources (except human remains and burial associated grave goods) discovered on the site. During a pre-construction meeting the qualified archaeologist and Native American monitor would review with the construction crews the types of archaeological materials that could be present at the site, and that if any construction personnel observes any potential archaeological materials that they inform the archaeologist and Native American monitor of the location of the potential resource.

  Should buried, unforeseen archaeological deposits be encountered during any project construction activity, work shall cease within a 50-foot radius of the discovery. The County shall ensure that a qualified professional archaeologist who meets the federal *Secretary of the Interior's Standards* in archaeology is retained to assess the significance of the find and recommend avoidance or treatment measures; work shall not resume until appropriate treatment has been completed. In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code Section 15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the City and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed.

- In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code Section

15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the County and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed. If recommendations are made and not accepted, during the mediation period, the Native American Heritage Commission shall mediate the issue and the Human Remains shall remain in the possession of the MLD.

Implementation of these procedures as mitigation would reduce the impacts to cultural resources to a **less than significant** level.

Geology, Soils, and Seismicity

The SEIR determined that seismic shaking could impair or otherwise compromise both the existing and proposed Class II liner and associated leachate collection system integrity, casing slope instability, damage to drainage features, or differential settlement of the landfill over the life of the project, or following closure.

Forward Inc. has prepared a seismicity study for the site. If the potential maximum peak ground acceleration in the seismicity study is greater than that assumed in the preliminary design, the final project design analysis will make modifications needed to meet the factor of safety (determinations may be subject to the approval of Cal Recycle and/or RWQCB). Impacts to the new liner and drainage system installed over the Austin Road Landfill will be monitored as appropriate based on any stipulations of Cal Recycle and/or RWQCB. Implementation of these procedures, along with appropriate slope maintenance that is also proposed as part of the project, would reduce this impact to **less than significant**.

Vegetation and Wildlife

As a participant in the SJMSCP, Forward will incorporate SJMSCP guidelines developed to minimize effects of rodenticides to the garter snake, the brush rabbit, western pond turtle, and the Swainson's Hawk (Appendix A of the SJCMSCP).

The SEIR determined that by participating in the SJMSCP and with this added a mitigation measure to the project will reduce the potential impacts to special-status species to **less than significant**.

Public Services and Utilities

The SEIR determined that procedures proposed as part of the project would reduce potential impacts to police and fire protection to **less than significant.**

Visual Quality

The SEIR determined that the project design would permanently alter the local landscape and ultimately create a higher, larger "artificial" hill on the site. This is a **significant and unavoidable impact** and no mitigation is available.

The following procedures are proposed as part of the project:

Native or drought-tolerant trees, shrubs, and grasses will be used in landscaping to conform to the natural vegetation of the area.

Working faces of the landfill will be minimized to reduce their visibility.

To the extent feasible, the top and side slopes of the landfill will be seeded with a mixture of native grasses and wildflowers that would visually blend with plants at the project site.

Dense screening vegetation will be planted along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations. To the extent feasible, this landscaping will consist of native shrubs and trees (such as valley oak).

Upon closure, the top and side slopes of the landfill will be planted with native grasses to the extent feasible.

Implementation of these procedures would reduce the visual effects of the project. However, the increase in height and mass of the proposed project would remain a **significant and unavoidable** impact. These impacts are addressed in the attached in the Statement of Overriding Considerations, *Attachment "A"*.

Litter and Trash

The SEIR determined that the project would increase the quantity of waste delivered to the landfill and the associated potential of debris and litter along access roads and at the site during transporting and handling of waste. The following procedures are proposed as part of the project:

- Refuse will be compacted and covered as soon as possible after deposition to reduce amounts of blowing litter.

- Daily inspection will be conducted to control litter on- and off-site, including the North and South Branches of the South Fork of Little Johns Creek, approach roads, entrance facilities, the transfer station/resource recovery facility, portable litter control fences, landfill perimeter fence, leachate impoundments, and storm water facilities including ditches, berms, and detention/sedimentation basins.

- The project sponsor will collect and deposit on-site litter on a daily basis. Portable litter collection fences will be installed as required to prohibit wind-blown litter from accumulating along roadways or around buildings. In accordance with San Joaquin County Ordinance No. 28870, adopted September 29, 1981, tarps will be placed over open loads to avoid littering during transport of waste (Title 5 Health and Sanitation, Division 2. Solid Waste Collection and Disposal, Section 5-2502).

- Whenever possible, the working face will be oriented to the downwind side of prevailing winds to help reduce litter.

- Forward will fund signage along Austin, Arch, and French Camp Roads, stating that all disposal site traffic loads shall be covered in accordance with Vehicle Code 23115(a).

- A 24-hour litter hotline will be established.

- A Litter Control Manager position will be created. The Litter Control Manager will be responsible for periodic inspection of loads for tarping, issuing notifications to vehicles for noncompliance with tarping procedures, and responding to and addressing litter complaints.

- Additional portable litter fencing will be purchased to enhance the existing portable litter fences used at the active face.

Implementation of these procedures would reduce the debris and litter effects of the project to **less than significant**.

Significant and Unavoidable Impacts

In summary, the SEIR identified the following impacts as significant and unavoidable:

- Project traffic would contribute to unacceptable Levels of Service at the following intersections under 2035 cumulative conditions:
    - SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
    - SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
    - SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
    - SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

- The project would contribute to a cumulatively significant increase in air pollutant emissions.
- The increase in extent and mass of the proposed project would constitute a significant visual impact .
- The project would result in significant and unavoidable project-generated traffic noise on Austin Road.
- The project's truck traffic would contribute to significant and unavoidable cumulative traffic noise on Austin Road.

These significant and unavoidable impacts are discussed and addressed in the attached Statement of Overriding Considerations, *Attachment "A", Section 8.* .

Project Opponents

The Community Development Department has received letters from residents in the vicinity and interested parties who expressed their concerns regarding the proposed project expansion. In their comment letters and oral presentations at the administrative hearing the residents raised the following issues. These issues and concerns include traffic, impacts to water, noise, visual impacts, air quality and odors, biological impacts and impacts to endangered species, loss and conversion of agricultural land, increase in landfill activities; impact on nearby farms, depth to groundwater and potential groundwater contamination, cumulative impacts when combined with other anticipated development, bird hazards, Williamson Act, and project site conflicting with existing or planned land uses and adopted plans., and Subsequent vs. Supplemental Environmental Impact Report. Community Development Department staff have reviewed the letters thoroughly and all issues raised from residents in the vicinity and interested parties. These issues have been addressed in sufficient detail in the Final Supplemental Environmental Impact Report (FSEIR).

Noticing

Community Development Department staff sent the Notice of Preparation to all property owners within the required notification area to solicit their concerns and encourage participation in the EIR process. When the Draft SEIR was published, all individuals on the notification list were notified of the Draft SEIR availability and sent a notice of how to participate in the CEQA process. On October 17, 2018 a public administrative hearing was also held on to take comments from the public on the Draft SEIR.

Williamson Act

The proposed 2018 project expansion area is not under a Williamson Act contract and therefore is not subject to making the required Principle of Compatibility of findings. In addition, the Department of Conservation did not raise any issues or concerns with the proposed project, as the proposed project does not include a Williamson Act Cancellation.

Groundwater Contamination and Volatile Organic Compounds (VOC's)

In comment letters received from the surrounding neighbors and interested parties there were concerns raised on the 2018 Expansion Project impacts on groundwater. Groundwater quality in the area has been impacted by Volatile Organic Compounds (VOC's) from the Forward Landfill operations and the Austin Landfills historical operations. The origin of the VOCs in the landfill is likely the result of a long process of degradation of household waste, containing common solvents such as tetrachloroethene (PCE), and trichloroethene (TCE). Also, the VOCs can be retained in solid state media (by adhering to clay particles as they move down in the unsaturated zone), in soluble form (as a dissolved fraction in surface water or groundwater), or in the form of a gas (circulating in the flux of the other common landfill gases, methane and carbon dioxide). The VOCs can transform easily from the solid, soluble, or gas form depending on the circumstances. The most prevalent chemicals of concern that affect groundwater quality at typical landfill sites are chlorinated solvents (referred to as VOCs), common to hundreds of consumer products.

Currently, groundwater at the Forward Landfill is monitored by 50 groundwater monitoring wells, three domestic wells, and five piezometers. The monitoring wells are used to collect water level elevations as well as water quality data. Data from these wells and piezometers indicate uppermost groundwater beneath the landfill occurs at depths that range from about 50 to 80 feet below ground surface (bgs) in the younger alluvium and is unconfined. Data collected by Geo-Logic between 2003 and 2018 indicate that, groundwater generally flows to the north and northeasterly at a gradient between 0.001 and 0.003 ft/ft. The existing monitoring system meets the requirements of the landfill's Detection Monitoring Plan (DMP) for groundwater monitoring, and the Corrective Action Plan for groundwater impacts.

Gradient

The regional groundwater gradient surrounding the landfill has historically been and continues to flow to the north and northeast. However, the groundwater flow direction within the southern half of the landfill site was previously reported to have a localized shift from the regional northeastern flow direction to a more southeasterly flow direction, beginning in 2015.

On March 22, 2019, a new study by Arcadis indicated that this reported southeasterly flow gradient may have been the result of erroneous well top casing measurements for two of the groundwater monitoring wells located in the southeastern area of the landfill Monitoring Well-22 (MW-22) and Monitoring Well-23R (MW-23R). To determine if a change in the direction of the groundwater gradient the well casings were re-surveyed by RJA (Ruggerio, Jensen, & Azar) and confirmed Arcadis' concern that the original casing heights were incorrect. When the corrected well casing heights are taken into consideration, the groundwater flow pattern in the southern portion of the site is consistent with the regional northeasterly flow pattern. As such, the corrected groundwater gradient in the southern portion of the landfill is to the northeast and away from other agricultural wells to the south of the landfill. In addition, no VOCs have been detected in groundwater samples from wells MW-22 and MW-23R, located down gradient (south) of the landfill, along the southern property boundary.

Airport Land Use Plan and Adopted Plans

The project site boundaries and proposed expansion area fall within the adopted Airport Land Use Plan for the Stockton Metropolitan Airport. The nearest runway of the Stockton Metropolitan Airport is one mile west of the existing Forward Landfill project site. A letter dated November 2, 2018, was received from the Airport Land Use Commission (ALUC) stating the ALUC considers this project as a compatible land use under the Airport Land Use Plan for Stockton Metropolitan Airport and recommends the following conditions, if the project is approved:

- Submit finalized plans to the FAA and Caltrans Division of Aeronautics for review.
- Comply with all applicable law and implementing advisories related to the landfill operations as indicated in the ALUCP.

The Community Development Department has included these in the proposed conditions of approval and are also included in the Mitigation Monitoring Plan, *Attachment "B"* in the staff report.

The project is also consistent with the Countywide Integrated Waste Management Plan and no additional adopted County Master Plan, Specific Plan or Special Purpose Plan are applicable to this project.

Subsequent Versus Supplemental Environmental Impact Report

According to CEQA Guidelines Section 15162 regarding Subsequent EIR's, it states that when an Environmental Impact Report (EIR) has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, that one or more of the following is true: (1) substantial changes in the project that require major revisions to the previous EIR, (2) substantial changes in the circumstances surrounding the project that result in major revisions to the previous EIR, or (3) new information of substantial importance that was not known at the time of the previous EIR.

The Community Development Department reviewed the proposed 2018 Project under the provisions of Section 15162 and found that there are no substantial change or new information that would trigger a Subsequent EIR under CEQA Guidelines Section 15162. CEQA Guidelines Section 15163, the lead agency may choose to prepare a supplement to an EIR (known as a supplemental EIR) rather than a subsequent EIR if:

1. Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
2. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The prior EIR certified by the County Board of Supervisors on September 23, 2014, was for a 184-acre expansion of the Forward landfill on an undisturbed parcel adjacent to the existing Forward landfill, which would have added 54 million cubic yards of additional disposal capacity to the landfill. The 2018 Project is for only a 17.3 acres acre expansion located within the existing disturbed area of the landfill that will add only 8.1 million cubic yards of disposal capacity. Therefore, in all respects the revised landfill expansion project is a smaller alternative project that will have less severe environmental impacts that the original 184-acre expansion.

Specifically:

- The revised project involves only 9.4 percent of the total acreage of the prior project;
- The revised project only adds 15.0 percent of the increased landfill disposal capacity of the prior project;
- The revised project involves a similar alignment (3,000 feet in the current project versus 3,000 feet in the former project) of the South Fork of South Littlejohns Creek.

Therefore, the revised project is substantially smaller than the former project analyzed in the EIR certified by the Board of Supervisors. The 2018 Project will not result in changes in the former project that will result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Further, no changed circumstances have occurred that would require major revisions of the previous EIR due to the occurrence of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, pursuant to the CEQA guidelines a Subsequent EIR is not required for this revised and much smaller “in-fill” landfill expansion project, and appropriately a Supplemental EIR was prepared pursuant to the CEQA Guidelines.

Recommendations

Action

It is recommended that the Planning Commission:

1. **Certify as adequate Final Supplemental Environmental Impact Report No. PA-0800105 under the provisions of Section 15090 of the California Environmental Quality Act (CEQA) (Attachment A).**

2. **Adopt "Findings of Significant Environmental Impacts" (Attachment A).**

3. **Adopt "Statement of Overriding Considerations" (Attachment A, Section 8.0).**

4. **Adopt the "Mitigation Monitoring Program" (Attachment B).**

5. **Approve Use Permit Application No. PA-1800090 with the Findings and Conditions of Approval contained in the staff report.**

Findings

1. The proposed use is consistent with the goals, policies, standards, and maps of the General Plan; any applicable Master Plan, Specific Plan, and Special Purpose Plan; and any other applicable plan adopted by the County.

   This finding can be made because the proposed landfill expansion is consistent with the General Plan's Public Health ad Safety Element regarding Hazardous Materials and Waste Objectives Goal PHS-7.2, PHS-7.3 and PHS-7.5. The project is also consistent with the Countywide Integrated Waste Management Plan and the Public Health and Safety Element regarding Airport Safety PHS-8.2 Coordination with the San Joaquin County ALUC. The project is consistent with the objective and policies of the General Plan Background Report Section 9.4, Solid Waste and Hazardous Waste. No Master Plan, Specific Plan or Special Purpose Plan is applicable to this project.

   1. Adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, and the proposed improvements are properly related to existing and proposed roadways.

      This finding can be made because the site has frontage on Austin Road, and the project has adequate drainage, utilities, water, and sanitation as shown on the site plans. No additional public facilities or services are proposed with this application.

3. The site is physically suitable for the type of development and for the intensity of development.

   This finding can be made because the landfilling expansion activities will be comprised of 17.3 acres and adequate area for this expansion project has been demonstrated on the site plans.

4, Issuance of the permit will not be significantly detrimental to the public health, safety, or welfare or be injurious to the property or improvements of adjacent properties.

This finding can be made can be made because the SEIR prepared for this project included mitigation measures within the MMRP (Attachment B) that reduce impacts to the public health, safety, or welfare, or injuries to the property or improvements of adjacent properties, to less than significant levels, with the exception of project traffic contribution under 2035 cumulative conditions, cumulative significant increase in air pollutant emissions, significant visual impact and significant noise impacts from project traffic on Austin Road. For those significant impacts, the County adopted "Findings of Significant Environmental Impact" (Attachment A) and "Statements of Overriding Consideration" (Attachment A).

5. The use is compatible with adjoining land use.

This finding can be made because the proposed use will not interfere with nor alter the current land uses on adjacent properties. The Airport Land Use Commission has reviewed the proposed 17.3 acre landfill expansion project and has determined the proposed project is a compatible use consistent with the Airport Land Use Plan for Stockton Metropolitan Airport.

Conditions

Use Permit Application No. PA-1800090 was approved by the Planning Commission on . The effective date of approval is . This approval will expire on , which is 18 months from the effective date of approval, unless (1) all Conditions of Approval have been complied with, (2) all necessary building permits have been issued and remain in force, and (3) all necessary permits from other agencies have been issued and remain in force.

Unless otherwise specified, all Conditions of Approval and ordinance requirements shall be fulfilled prior to the establishment of the use and the issuance of any building permits. Those Conditions followed by a Section Number have been identified as ordinance requirements pertinent to this application. Ordinance requirements cannot be modified, and other ordinance requirements may apply.

1) COMMUNITY DEVELOPMENT DEPARTMENT (Staff Contact: John Funderburg, [209] 468-3160)

   a) **IMPROVEMENT PLAN:** Submit an "APPLICATION-IMPROVEMENT PLAN". The Site Plan required as a part of the Improvement Plan application must show drainage, driveway access details including gates, on-site parking, landscaping, signs, existing and proposed utility services, and grading (refer to the "SITE PLAN CHECK LIST" for details). A fee is required for the Site Plan review. (Development Title Section 9-884)

   b) **APPROVED USE:** This approval is for the "Proposed Project" as described in Chapter III, Project Description of the Final Supplemental Environmental Impact Report (SCH#2008052024) April 2019 and involves the following below:

      i) Allow the construction of landfill disposal cells and landfilling operations within those cells on an 8.7-acre parcel that lies in the northeast portion of the site within the currently permitted landfill boundary. Also allow the construction of 8.6 acres of landfill disposal area is proposed to be added in the south area by shifting the existing disposal footprint to the north and realigning the South Fork of South Littlejohns Creek to the southern and eastern boundary of the site (see Figures III.C-4 and III.C-5 of FSEIR).

      ii) Increase total landfill capacity by approximately 8.12 million cubic yards (cy) beyond currently permitted levels (see Figure III.C-6 of FSEIR). This would increase the remaining landfill capacity from approximately 15.7 million cy currently permitted to approximately 24 million cy. All of the increase would be Class II landfill space, to allow the expansion area to accept both Class II and Class III waste.

      iii) Relocate approximately 3,000 feet of South Fork of South Littlejohns Creek (which currently traverses the landfill) to the southeastern boundaries of the site to provide additional separation of the creek from the landfill. The relocated creek would be approximately 3,400 feet in length.

      iv) Add a bridge crossing on the east side of the South Fork of South Littlejohn's Creek as shown on Figures III.C-5 and III.C-6 of the FSEIR. (Use Type: Major Impact Services)

   c) **PREVIOUSLY APPROVED CONDITIONS OF APPROVAL:** All previously approved Conditions of Approval for Use Permit No. UP-00-0007and PA-1000245 shall still apply.

d) **MITIGATION MONITORING PROGRAM:** The project applicant shall comply with the attached Mitigation Monitoring Program, (*Attachment "B"*) (MITIGATION MONITORING AND REPORTING PROGRAM 2018 FORWARD LANDFILL EXPANSION PROJECT)). The applicant and the Community Development Department shall annually review the program. Not less than 30 days nor more than 60 days prior to the first anniversary date of this approval, and each anniversary date thereafter, the applicant shall submit to the Community Development Department a letter setting forth the applicant's good faith compliance with the terms and conditions of the program. Community Development Department staff will visit the site semi-annually. All costs incurred by the Community Development Department for the semi-annual monitoring and the annual review shall be borne by the applicant. The costs may include costs of Community Development Department staff and administrative time and direct out-of-pocket costs and expenses, including costs of consultants and non-department personnel. Community Development Department staff time may include overhead costs and will be consistent with Department policy.

e) **MITIGATION MEASURES (*Attachment "B"*):** The following mitigation measures identified in the Final Supplemental Environmental Impact Report – Forward Inc. Landfill 2018 Expansion Project (2008052024) are adopted as conditions of approval. **(Note to reviewing monitoring staff the format follows the mitigation monitoring plan and is formatted this way in the conditions of approval for ease in implementation)**

Stockton Metropolitan Airport and Federal Aviation Administration (Staff Contact(s): Russell Stark, 209-468-4709/Fernando Yanez, (650) 827-7615)

Proposed as Part of the Project:

Forward would continue its procedure of submitting a Notice of Proposed Construction or Alteration (FAA Form 7460-1) at least 45 days prior to operation of any equipment that could temporarily intrude into the imaginary surface, as required by the Federal Aviation Administration (FAA) for all proposed construction or alterations that could intrude into the airport imaginary surface.

3. Proposed as Part of the Project:

Existing measures to discourage birds from the landfill will be continued. Surface area of ponds will be limited to the extent feasible.

The project sponsor will continue to monitor bird populations. If follow-up surveys show an increase in bird populations, the project sponsor will increase mitigation measures such as covering the fill areas as soon as possible and using noise-makers and other measures as necessary to discourage birds from the site, until bird population levels return to the level found in pre-project surveys. Use of noise-makers would be limited to daylight hours.

As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018 (Basso, 2018a).

As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not pose a bird hazard to aircraft in the operating record and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record.

Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018 (Basso, 2018d, 2018e).

The project sponsor shall comply with the requirements applicable to existing landfills contained in Federal Aviation Administration (FAA) Advisory Circulars 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports*, and 150/5200-34A, *Construction or Establishment of Landfills Near Public Airports.* Requirements in Advisory Circular 150/5200-33B applicable to the proposed project include notification of the FAA and airport, and a demonstration that the landfill is designed and operated so it does not pose a bird hazard to aircraft. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018 (Basso, 2018a. The effectiveness of the gull control program at the existing landfill in avoiding bird hazards to aircraft is discussed under IV.A Surrounding and Nearby Land Uses, and the demonstration that the site will not pose a bird hazard to aircraft was placed in the operating record by letter on July 6, 2018. Advisory Circular 150/5200-34A applies only to establishment of new landfills near airports, and does not apply to the proposed project.

The project sponsor will abide by any additional reasonable and feasible measures designated by the Stockton Metropolitan Airport or the FAA to mitigate bird population impacts that could be caused by the proposed project.

4. (A.4) Identified in this SEIR:

The project sponsor shall implement an annual gull control program as described in Rolph A. Davis, Ph.D. LGL Limited Environmental Research Associates, Demonstration of the Effectiveness of the Bird Control Program at the Forward Landfill, Manteca, California – 2016-2017, August 7, 2017.

The gull control program shall include monitoring of gulls feeding at or using the landfill, as described below.

- Monitoring shall be conducted by an independent third-party firm or individual with experience in the field of bird hazards to aircraft safety.

- The third-party monitoring shall consist of a minimum of six site visits, each lasting four hours, every month from October through May. To the extent possible, the site visits shall be announced in advance. During each month:
  - two of the visits shall begin at dawn,
  - two shall occur during mid-day,
  - one shall occur late in the afternoon covering the period after the falconer has finished for the day, and
  - one shall occur on Sunday when the landfill is closed to ensure that gulls are not accessing the site when staff are absent.

- Site visits in addition to the minimum of six monthly visits described above shall be made if necessary to verify the criteria for failure described below.

- The results of the monitoring shall be documented in an annual report.

- Landfill staff shall participate in monitoring so that action can be taken as soon as a potential problem is identified.

The control program shall be considered to be failing and will require upgrading if any of the following situations occur:

- Gulls land at the active disposal area, begin to feed, and are able to feed for 10 minutes or more, on two or more occasions during a week.

- Flocks of gulls begin loafing on other parts of the landfill and are not scared away by the control program within 30 minutes, on more than two occasions during a week.

- Gulls begin to circle over the landfill, including adjacent creek areas, and are not removed by the falcons. If this behavior continues over a period of one week, then it indicates that the birds are likely getting food at the landfill.

The above triggers do not specify a minimum number of gulls because if one or two gulls are present, they will soon attract other gulls and numbers will build up. Therefore, it is essential to deter the first gulls.

In the event that the bird control measures proposed as part of the project, described above, in combination with the gull control program described in this mitigation measure, are found to be ineffective in reducing the numbers of flocking birds by the criteria described above, the project sponsor shall implement one or more of the following:

3. The falconry program shall be intensified to ensure that there are no gaps in coverage and that additional falcons are available for those days when it may be necessary to fly the falcons often.

4. The operator shall introduce a more comprehensive pyrotechnic-based control program to supplement the falconry program. Many landfills successfully control gulls using only a pyrotechnic-based program. The pyrotechnics program shall provide coverage when the falcons were not on site during the week and on weekends. The pyrotechnics program shall also cover areas remote from the active area to remove loafing gulls.

3. With the exception of removal of prey base for predatory birds and mammals, and actions involving special-status bird species, the operator shall implement the recommendations for vegetation, wildlife, and water management contained in *Odell, Russel W., Senior Wildlife Biologist, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services California,* Letter to John Funderburg, Principal Planner, San Joaquin County Community Development Department, *August 29, 2011*.

The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already filed this form for the proposed project (Lewis, pers. com, August 8, 2018). This form shall be re-filed if there is any change to proposed landfill grade.

The project sponsor shall undertake regular, ongoing communication with Airport staff regarding the airports Wildlife Hazard Assessment and wildlife management program, to address changes in wildlife presence or behavior observed at the landfill.

5. Proposed as Part of the Project:

Aircraft warning lights will be installed at the landfill as and when required by the FAA.

As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. (Basso, 2018a, 2018b).

As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not cause a bird hazard to aircraft, and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018. (Basso, 2018d, Basso, 2018e).

The use of highly reflective surface materials in constructing structures on the site will be prohibited.

6. (A.5) Identified in this SEIR:

The project sponsor shall include downward shielding of new landfill lighting, and shall abide by any additional reasonable and feasible measures that are designated by the Federal Aviation Administration (FAA) and Stockton Metropolitan Airport to mitigate lighting impacts that could be caused by the proposed project, including reducing or eliminating lighting during foggy conditions and concurrently suspending operations that depend on the lighting.

The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already filed this form for the proposed project (Lewis, pers. com, August 8, 2018). This form shall be re-filed if there is any change to proposed landfill grade.

B. TRANSPORTATION AND CIRCULATION (Staff Contact: Awni Tawa, 468-3000)

7. Identified in this SEIR (B.7). (Revises 2013 EIR Mitigation Measure B.7).

Improvements to Intersection 11, Arch Road/Austin Road, Southbound: The project shall contribute its fair share to the addition of one lane to provide one left-turn lane, two thru lanes, and one right- turn lane, as detailed in the 2018 SEIR TIA, Figures 12 and 13.

C. NOISE

11. Proposed as Part of the Project:

As recommended mitigation in the 2000 EIR and implemented by the applicant the landowner or tenant at 9690 Austin Road shall be provided with the option of requesting a sound wall or noise barrier to reduce noise exposure both in the front yard and within the home. Additional noise monitoring and measures will be undertaken to demonstrate compliance with Development Title Section 9-1025.9 Transportation Noise Sources in the event noise complaints are received.

12. (C.2) Identified in 2013 EIR and revised in this SEIR:

(a) To reduce truck traffic noise impacts, the landfill operator shall annually notify truck drivers with a flyer that encourages drivers to maintain a steady speed on surface roads leading to the landfill. Drivers should be instructed to eliminate unnecessary noise by staying within the speed limit and travelling at a steady speed, especially for trips during the morning peak hours.

(b) For sections of Austin Road north of the landfill to Arch Road and south of the landfill to French Camp Road and Arch Road immediately west of Austin Road, residences within 100 feet of the centerline of Austin Road shall be provided with the option of requesting funds for installation of a sound barrier and/or additional insulation

Mitigation Measure C.2 could reduce the impact of increased truck noise to a level that would be less than significant, if residences request funding and implement the soundproofing measures. Other than Mitigation Measure C.2, no additional mitigations are available for this impact other than reducing project operations (Project Alternative 6). Reducing project operations would be a substantial change to the proposed project and therefore is addressed as a component of Alternative 2B (Reduced Size/Reduced Daily Operations Alternative) in Chapter V of the 2013 EIR.

13. (C.3) Identified in 2013 EIR and revised in this SEIR:

The Landfill shall implement one of the following two options to mitigate this potentially significant impact:

(a) Heavy equipment operations shall not be conducted within 1,500 feet of any occupied residence after 10 p.m. and before 7 a.m.; or

(b) Equipment operations within 1,500 feet of any residence after 10 p.m. or before 7 a.m. shall be fully shielded from the direct line of sight to the residence by an earthen berm whose crown elevation exceeds the elevation of the top of the exhaust stack.

14. Austin 1994 (H1.a, H1.b), Austin 2000 (H1.a, H1.b) Forward 1993 (E1) Forward 1993 (E2) Forward 1993 (E3)

The proposed project must conform to the San Joaquin County Noise Standards contained in the County's General Plan. The project sponsor shall be required to demonstrate compliance with this performance standard. Work areas could be limited, work times close to the residence could be rescheduled, noise barriers such as earth berms could be designed, and noise monitoring shall be undertaken to demonstrate compliance in the event noise complaints are received.

Use quietest equipment available.

Additionally, if project-related noise levels measured at the property line of any residential use would exceed an hourly average of 45 dBa during the nighttime or 55 dBa during the daytime, then setbacks and a limitation on hours of operations shall be mandatory.

D. AIR QUALITY/ODORS –Air Pollution Control District (Staff Contact: Stephanie Palmer, (559)230-5820)

15. (D.1) Identified in 2013 EIR and Modified in this SEIR:

The applicant shall comply with Regulation VIII and implement the following control measures during construction:

• The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes 40 acres or more of disturbed surface area.

Specific relevant control measures for construction, excavation, extraction, and other earthmoving activities required by the SJVAPCD include:

• All disturbed areas, including storage piles not actively utilized for construction purposes, shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover or vegetative ground cover in order to comply with Regulation VIII's 20 percent opacity limitation.

• All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.

• All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.

• When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

• All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. However, the use of blower devices is expressly forbidden, and the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.

• Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized utilizing sufficient water or chemical stabilizer/suppressant.

• Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Enhanced and additional control measures for construction emissions of PM_{10} shall be implemented where feasible. These measures include:

• Limit traffic speeds on unpaved roads to 15 mph.

• Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

• Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

• Install wind breaks at windward side(s) of construction areas.

• Suspend excavation and grading activity when winds exceed 20 mph.

• Limit area subject to excavation, grading, and other construction activity at any one time.

The applicant shall implement feasible control measures during construction to mitigate NO_x and VOC emissions from construction equipment, which may include:

Require construction equipment used at the site to be equipped with catalysts/particulate traps, or Tier 4 diesel engines to reduce particulate emissions. Currently, CARB has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, contractors must show that the diesel-fueled construction equipment used is equipped with particulate filters, catalysts, or Tier 4 diesel engines, or prove why it is infeasible.

• Use alternative fueled construction equipment, where feasible.

• Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

• Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.

• Require that all diesel engines be shut off when not in use on the premises to reduce the emissions from idling.

**16. Identified in This EIR (Revises 2013 FEIR Mitigation Measure D.2a.): **

The applicant shall comply with SJVAPCD Rule 2201 regulations to offset stationary source emissions of VOCs, CO, NO_x, SO_x, PM_{10} and $PM_{2.5}$ in excess of the applicable SJVAPCD emissions offset threshold levels. The applicant shall also comply with Regulation VIII and implement Mitigation Measure D.1. for operational activities such as earthmoving.

17. Identified in this SEIR. (Revises 2013 FEIR Mitigation Measure D.2b.):

On-site Particulate Emission AAQS Mitigation

The applicant shall implement one or a combination of the following options to reduce air quality emissions below the thresholds.

(a) Limit future truck trips to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" PM_{10} or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

Regional Criteria Pollutants Emission Mitigation

The applicant shall implement one or a combination of the following options to reduce air quality emissions below the thresholds.

(a) Limit future truck trips to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" NOx, PM_{10}, or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for NOx, PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

18. (D.3) Identified in this SEIR (Same as 2013 FEIR Mitigation Measure D.4):

To reduce the potential for any off-site odor impacts, the Odor Control Management Plan for Forward Landfill shall be modified to include daily management odor inspections when cannery wastes are being processed.

19. (D.4) Identified in This EIR (Same as 2013 EIR Mitigation Measure D.5):

Both the Flare and LFG engine options would require feasible mitigation measures to further reduce GHG emissions. The landfill operators shall annually report GHG emissions from the project (actual operations) to the County and SJVAPCD. If the increase in operational operations exceeds 25,000 metric tons of CO2e per year by 2020, then the landfill shall purchase verifiable GHG credits to offset the remaining project emissions above 25,000 metric tons of CO2e per year. Additional GHG credits shall be purchased every five years if the annual reports indicate that the credits have not offset excess GHG emissions (those above 25,000 metric tons of CO2e per year) in the prior five years.

20. Forward 2002 (D.2)

The project sponsor shall mitigate any significant future ROG increase by developing gas wells within the Forward Landfill sufficient to achieve a recovery rate of 100-200 cfm of LFG from the Forward Landfill. The gas wells shall be integrated into the consolidated facility collection/ disposal system. To maintain a less-than-significant ROG increase from existing conditions, a small LFG collection system shall be installed at the currently uncontrolled

Forward Landfill before the total increased fugitive LFG release rate from all sources reaches 150 cfm (equivalent to 10 tons of ROG per year).

21. Austin 1994 (G5.b), Austin 2000 (G5.b)

Excessively odorous wastes shall be mixed immediately with other landfill wastes, depending on their nature and source. If diluting the intensity of odor is not sufficient, then the operator shall immediately cover offensive materials as soon as they arrive at the landfill.

22. Austin 1994 (G5.c), Austin 2000 (G5.c)

The operator shall ensure that loading, unloading, and material handling activities are carried out efficiently and without delays to avoid excessive odors.

23. Forward 1993 (D1)

Use water trucks and/or sprinkler systems to apply water a minimum of twice daily to roadways and active faces of asbestos disposal areas to minimize airborne dust leaving the site. It is recognized that a balance must be struck between maintaining sufficient moisture for dust control and applying too much moisture such that the generation of excess leachate occurs. The conditions of the active faces of a landfill, as well as the leachate generated, must be monitored and professional judgment utilized at all times to keep these two factors in balance.

24. Forward 1993 (D2)

Portions of the site that either have been filled to the extent allowed or are not expected to be worked for extended periods (six months or longer) shall be sown with fast-germinating drought-tolerant grass seed and watered until a cover of vegetation is established.

25. Austin 1994 (G1.b), Austin 2000 (G1.b) (similar)

The project sponsor shall seek to minimize the extent of area exposed to wind erosion. Exposed surfaces, including stockpiles, shall be vegetated to the extent possible.

26. Austin 1994 (G1.c), Austin 2000 (G1.c)

Plan and phase construction and closure operations such that they do not take place simultaneously on dry windy days. Schedule particularly dusty activities on separate days.

27. Austin 1994 (G1.d), Austin 2000 (G1.d)

Design the site filling plan to facilitate screening of the active face from the prevailing winds, whenever possible, to minimize the amount of windblown dust released from the working face.

28. Austin 1994 (G1.e), Austin 2000 (G1.e)

Haul trucks carrying easily airborne material shall be covered during transport and sprayed with water prior to dumping if it is shown that this would reduce dust emissions during off-loading activities within the landfill.

29. Austin 1994 (G1.f), Austin 2000 (G1.f)

The landfill operator shall restrict truck and equipment travel over loose, uncompacted, unpaved surfaces.

30. Forward 1993 (D5)

A particulate/meteorological monitoring station should be installed on the project site, preferably near the site boundary with one of the closer residential receptors. This monitoring station should be operational for a minimum of six months during the dry season (April-September) before landfill activity begins to intensify as a result of project implementation. Data should be collected daily during this baseline period, during the landfill's transition to higher project-related activity levels, and during the landfill's peak operational phases thereafter. If the more intensive landfill operations are found to increment the 24-hour average of the annual average PM10 levels by more than 5 ug/m3 over baseline, respectively, even with the implementation of all the above-mentioned dust controls, further dust control measure and/or limits on the amount of waste received at the site may be necessary to control PM10 impacts.

31. Forward 1993 (D6)

Forward, Inc. shall schedule regular deliveries of waste at the landfill to minimize queuing and idling.

32. Austin 1994 (G2.b), Austin 2000 (G2.b)

The idling of all internal combustion equipment shall be limited to ten minutes at any given time.

33. Austin 1994 (G2.a), Austin 2000 (G2.a)

All internal combustion engine driven equipment should be properly maintained and tuned according to manufacturers' specifications.

34. Forward 1993 (D8)

All VOC-contaminated soil which is not being treated shall be covered with six-mil non-porous plastic.

35. Forward 1993 (D9)

If VOC emissions exceed APCD limits for open aeration, a VOC collection and removal system shall be installed to minimize VOC emissions.

36. Forward 1993 (D10)

Any net increase in VOC emissions which remain after the installation of a collection/removal system shall be offset to the degree required by SJVUAPCD Rule 220.1

E. PUBLIC HEALTH AND SAFETY:

AGENCY CONTACTS: LATHROP-MANTECA FIRE DISTRICT/CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (Sacramento Office, 916-445-3846)/CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

37. (E.1). Proposed as Part of the Project (Same as in 2013 EIR):

- Use a total of 17 pieces of equipment (at any given time) over the life of the project to minimize particulate discharge, will remain unchanged.
- Waste Management Unit operations at the landfill would be limited to a single working face for disposal operations at any given time.
- All employees would be given appropriate training regarding the potential for exposure to hazardous materials. This training will include a 24-hour hazardous waste operations course and an annual 8-hour refresher course for personnel involved in the "load checking" program where the incoming loads are screened for hazardous materials.
- The landfill would not accept any designated waste that may potentially contain hazardous levels of regulated substances (as defined in water Code Section 13173) unless authorized by the RWQCB.
- Dust control procedures specified in the Site Operations Plan (per the JTD) would use the application of fine water spray at a minimum of twice daily on the active soil-covered work areas, soil excavation areas, and soil stockpile areas where fugitive dust may exist.
- Existing fire protection facilities would be maintained to the satisfaction of the Lathrop – Manteca Fire Protection District.
- Dust exposure of site workers would be monitored periodically, at the discretion of the landfill manager, to evaluate if any additional respiratory protection or dust suppression (watering) mitigation is needed.
- Additional engineering controls would be implemented by the site operator, if needed based on the evaluation of the site health and safety or operations manager, to control dust emissions. Such controls might include wind screens near unloading areas or the use of dust suppressants.
- If the above controls cannot reduce employee dust exposure below acceptable levels as determined by Forward Landfill (considering factors including irritation and annoyance to employees), site personnel at risk would be supplied with gloves, coveralls, eye protection and respirators, with associated training in their use.
- Wastes must not leave the landfill on workers' clothing. Workers who have had direct contact with waste, or who have performed operations that may involve direct contact with wastes (such as equipment maintenance or asbestos handling), would wear disposable clothing or change clothing before leaving the site. The potentially contaminated clothing will be cleaned or disposed as appropriate.
- To avoid cross-contamination from contaminated to non-contaminated sites, the applicant would install a pressurized water distribution system to service a decontamination facility for personnel and equipment. The decontamination facility may be fixed or mobile.
- For asbestos, a strict Asbestos-Containing Materials (ACM) handling program would be developed, and would include the following:

a. Bagged ACM would be dumped only onto the working face of the asbestos disposal area and not onto the flat compacted landfill surface. Bulldozers would then push soil cover onto the working face to cover the ACM bags and will not contact the bags.

b. For Forward site employees engaged in handling asbestos materials, Forward will implement one of the following:

    1. a three-day approved asbestos workers training program
    2. any asbestos training program specific to landfill employees that has been developed, described, or required by regulation by either the CalRecycle or Cal-OSHA
    3. any other asbestos training program approved by Cal-OSHA

c. Provision of water at the working face to keep ACM damp until covered.

- Continuation of the annual physical evaluations of all onsite Forward employees for asbestos exposure.
- Workers would not be allowed to eat near the active landfill.

38. Proposed as Part of the Project (Same as 2013 EIR Impact E.2):

The Forward Landfill "load-checking program," which is designed to mitigate against hazardous waste being placed in the landfill, will continue to be implemented for the consolidated landfill.

Landfill operators will be trained to recognize and properly segregate and handle hazardous waste. This will include a 24-hour hazardous waste materials management training program that complies with 29 CFR, Section 1910.

39. Proposed as Part of the Project (Same as 2013 EIR Impact E.3.):

The Standard Safe Work Practices listed in the Forward, Inc. Site Health and Safety Program and Contingency Plan will be implemented by the operator.

The landfill operator will comply with the provisions of CCR Title 27, Section 20590, which requires that O&M personnel wear and use approved safety equipment for personal heath and safety.

Landfill access will continue to be controlled to limit unauthorized entry by persons or vehicles.

The landfill operator will comply with all provisions of CCR, Title 27, Division 2, Chapter 3, Subchapter 4, Articles 1-3, that apply to landfill health and safety.

40. Identified in This EIR (Same as the 2013 EIR Mitigation Measure E.3.):

The San Joaquin County Public Works Department shall approve any new waste transport haul routes to the landfill from major arterials, SR 4, or Highway 99.

41. Proposed as Part of the Project:

Where required by State and Federal regulations, the landfill gas monitoring, gas control and collection system will be installed, extending to the new areas of the expanding landfill and operating in conformance with applicable regulations.

The existing gas extraction system, or an equivalent system, will continue to operate.

Regular gas monitoring will be conducted to prevent explosive or toxic gas accumulation in onsite buildings or beneath temporary buildings. The landfill operator will install an automatic combustible gas detection and alarm system for structures at the site.

The landfill operator will not construct or otherwise locate any structure in an area of known landfill gas build-up.

All site personnel who work in permanent structures will be trained to use and respond to the landfill gas monitoring and alarm system.

42. Identified in this EIR (Same as the 2013 EIR Mitigation Measure E.4.):

Landfill gas monitoring shall include volatile organic compounds in order to determine the amount of contaminant recovery, and control potential exposure to on site personnel.

43. (*Forward 2002) (E.5)* CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL (Staff Contact: Matthew Mullinax, (916) 255-6531*)*

The landfill operator shall submit an updated post-closure permit application for WMU-A that presents plans to prohibit the expansion of the new landfill areas above WMU-A. The applicant filed a renewal of its hazardous waste permit for WMU-A on October 31, 2000 (Kleinfelder, 2000) that presents the controls and monitoring of WMU-A. The applicant's JTD describes creating a wedge of landfill material north of WMU-A that would keep a buffer area around the WMU-A boundaries clear of new refuse and then start to build outward and upward. This plan must have the approval of the California Department of Resources Recycling and Recovery and RWQCB.

44. Proposed as Part of the Project:

The landfill operator will follow legally required daily or alternative cover practices.

The landfill will continue to ban intact tires (which collect water and serve as a breeding ground for vectors) and large dead animals from disposal at the landfill.

Existing measures to discourage birds from the landfill will be continued. [Including continuation of the annual gull control program.]

Appropriate landfill personnel will periodically monitor the landfill for the presence of vectors, and landfill inspections will be documented in the landfill operations administrative file.

45. Identified in this EIR (Same as the 2013 EIR Mitigation Measure E.6.):

(a) All applicable regulatory guidance originating after the Forward Landfill 2002 EIR shall be implemented; all hazardous materials shall be handled in accordance with local, State, and federal regulations.

(b) The site HMMP, SWPPP, Operations Manual, and Wet Weather Plan shall serve to provide guidance in the use and handling of hazardous materials during the operations of the facility.

46. *Forward 2002 (E.8)*

Forward Landfill shall continue to test all known water supply wells within the area of the mapped and projected groundwater plume. Groundwater monitoring test shall be performed quarterly at all downgradient private wells at risk. Where detectable VOCs have historically been reported, bottled water shall continue to be supplied by the applicant (as is currently being done for two affected households) until the well sample analytical results show no detectable VOCs for four consecutive quarterly sampling events.
Other offsite private wells such as the CYA wells that have not been adversely affected by the plume shall continue to be monitored and if VOC-contamination is reported then replacement water shall be provided by the applicant, if requested. For wells within the footprint of the plume, institutional controls such as notification to current and future landowners regarding risks of installing production wells shall be implemented as part of the local well permitting process.

47. Austin 1994 (L2.b) (updated), Austin 2000 (L2.b)

The landfill operator shall continue to participate in the San Joaquin County Regional Household Hazardous Waste Program to help reduce the amount of household hazardous waste in the waste stream.

48. Forward 1993 (A5)

Fire hydrants and a pressurized water source for fire suppression and dust control shall be installed.

49. Forward 1993 (A.11)

In order to reduce risks to public health due to particles of ash leaving the facility, all trucks containing ash shall be covered and water should be available at the ash pile to assure that all ashes which are dumped are damp. Active faces need to have a certain moisture content so as to preclude the generation of dust. It is recognized that a balance must be struck between maintaining sufficient moisture for dust control and applying too much moisture such that the generation of excess leachate occurs. The conditions at the active faces of a landfill as well as the leachate generated, shall be monitored and professional judgment utilized at all times to keep these two factors in balance.

F. HYDROLOGY AND WATER QUALITY-REGIONAL WATER QUALITY CONTROL BOARD (Staff Contact(s): Brad Shelton/Vinoo Jain (916)464-4815)

50. Proposed as Part of the Project:

- The drainage study utilizes San Joaquin County local rainfall data, and the Rational Method would be used to estimate maximum potential runoff from a 1,000-year, 24-hour storm event. The surface water control system and drainage control structures for the proposed project would be sized to accommodate the calculated peak flows.
- As part of the design plans for the proposed landfill expansion, Forward will complete calculations of the 1000-year, 24-hour storm event peak discharges. The hydraulic and drainage study would be used to design appropriate drainage controls. Drainage controls would be designed to prevent contact between surface water and refuse. Site run-on and run-off control facilities consist of drains and perimeter ditches that channel surface water to holding and evaporation ponds on the site. The surface-water collection drain system would be designed to divert the water to the onsite sedimentation basins. All waste at the proposed Forward Landfill would be separated from the North and South Branches of South Littlejohns Creek by a levee system or other acceptable method designed to protect the site from a 100-year flood event.
- Channel design features are proposed as part of the expansion project: The project includes channel reconfiguration and localized flood protection berms to isolate the landfill surfaces from floodwaters.
- The project design shall also include provision of replacement floodplain area and storage volume in an easement along the relocated South Branch of South Littlejohns Creek.
- The channel and floodplain storage easement are designed to accommodate the 100-year, 24-hour storm. The design would also include a three-foot freeboard.

51. Proposed as Part of the Project:

- The current drainage control structures and monitoring would continue to be implemented to control erosion and sedimentation in the expansion areas. Proposed structural controls include the drainage control system and daily cover. Operational controls include maintenance of the drainage system by keeping ditches clear of debris and excessive vegetation, and making needed repairs to drainage structures. Corrective measures would be implemented if inspections show excessive erosion or damage to drainage channels. Any areas showing erosive effects would be mitigated by removing loose debris followed by replacement, regrading, and compacting the area. Monitoring and protection against sediment from entering the Little John's Creek channel would be implemented, including the diversion of part of Littlejohns Creek farther away from the landfilled area.

- In order to minimize sediment transport to Littlejohns Creek, landfill slopes, ridge tops, and peripheral areas would be revegetated to inhibit erosion.

52. Proposed as Part of the Project:

The following groundwater quality protection measures are proposed as part of the project: (as required under CCR Title 27)

- A pan lysimeter (secondary liner) would be installed under the sump area, as previously required by the RWQCB;

- The liner and leachate collection system for the two new expansion areas would meet Title 27 requirements and be reviewed and approved by the RWQCB and new WDRs issued, as warranted;
- The regulatory required separation between the liner and groundwater shall be implemented to allow for chemicals in the leachate to attenuate before reaching the groundwater, should the leachate breach the liner and leachate collection system;
- Leak location testing of the liner in each WMU shall be conducted before waste can be disposed in that Unit, as required by the RWQCB;
- If any modifications to the leachate collection system and associated monitoring are required by the RWQCB, the landfill operator shall implement those changes;
- The liner system will be overlain by a protective operations layer consisting of a one-foot thickness of soil and a one-foot thick gravel layer that serves as the leachate collection layer. This two-foot layer will serve to protect the liner system from sharp or jagged materials in the waste.
- The operator will remove any hazardous materials spotted during delivery, thus minimizing the potential for leachate impacts to groundwater if a break occurs in the liner or the leachate collection system.
- Landfill operations and maintenance are designed with appropriate schedules to identify and correct any failures in the leachate collection system.
- In addition, the RWQCB will review the updated Joint Technical Document (JTD), the leachate collection system, and associated monitoring, and could require changes to the planned leachate collection system or monitoring.

53. Proposed as Part of the Project:

- The proposed measures to address concerns about additional leachate generation as a result of the expanded landfill will be addressed in the JTD with the presentation of the updated EPA HELP model results based on the projected volumes of refuse, a historical analyses of actual leachate generation volumes (which were at significantly higher volumes than the model predicted for peak year rainfall) and the description of the leachate collection system designed to meet the maximum probable leachate generated. Engineering control systems (leachate collection system, drainage control, groundwater and gas controls), monitoring programs, and institutional controls will be similar to the successful systems that have been presented in the JTD for the existing Forward Landfill, which has been reviewed by the RWQCB. Reporting on leachate generation volume and quality is a requirement of the RWQCB-stipulated progress reporting through the various proposed landfilling phases.

- The landfill cell anchor trenches would be elevated two to three feet above the surrounding land to minimize the possibility of water from major storm events draining into the cells and adding to the volume of leachate.

54. Proposed as Part of the Project

U.S. ARMY CORPS OF ENGINEERS (Staff Contact: Chandra Jenkins, 916-557-6652)

The following measures are proposed as part of the project, as described in the Project Description and design study for the proposed creek realignment:

- The channel must function as a natural corridor, require little or no maintenance once the vegetation is established, and should provide 100-year flood protection.

- The channel slope and depth will be appropriate to the 100-year flood protection. The channel slope and depth are based on the invert elevations of the existing channel at the start and end of the new channel. The slope between these two points along this alignment is designed for 0.00055 ft/ft which translates into a ground surface profile along the alignment a channel depth between 10 and 12 feet.
- The appropriate responsible agencies must review and approve the updated April 2018 design for the relocation of the South Branch of South Littlejohns Creek.

55. Proposed as Part of the 2013 Project:

- A liner and LCRS would be constructed at the interface of the expansion cells and the existing Class III cells, similar to the liner and LCRS that has been designed, constructed, and approved by the RWQCB for the existing Forward Landfill.
- Because the liner and LCRS would be constructed on a refuse surface, the liner and LCRS design would account for differential settlements of the underlying refuse.
- The appropriate responsible agencies, CalRecycle and RWQCB, shall conduct a review of the liner and leachate collection system for the interface liner and LCRS in the upcoming JTD update.

56. Proposed as Part of the Project

- Forward Landfill has agreed to a short-term and long-term mitigation of the offsite impacts of the existing VOC plume, to provide an alternative source of drinking water to those residents in the downgradient area who are using domestic water wells for drinking water and whose domestic wells may be adversely affected by the VOC plume.

  A long-term solution currently being investigated by Forward to assist those residents on Newcastle Road, who are already being provided with bottled drinking water by Forward, is for Forward to provide the property owners on Newcastle Road in the footprint of the downgradient plume with municipal piped water to replace the current use of the supply wells;
- The residences on Newcastle Road would continue to be supplied with bottled water until municipal piped water is provided;
- Residents on Austin Road would continue to be supplied with bottled water from the City of Stockton until municipal piped water is provided.
- Because of the potential for impact from the plume to the downgradient receptors, determination of the sampling program frequency and any changes to it, along with the appropriate mitigation, is the responsibility of the RWQCB and must be carried out under their permit authorization; and
- The groundwater capture and remediation system could be augmented to capture the current offsite plume to the satisfaction of the RWQCB based on their review of future source control reports.

57. Proposed as Part of the Project (Supersedes #~~57~~, below)

- Continued recharge of extracted and treated groundwater. In the GeoLogic 2017 Corrective Action Monitoring Workplan the construction of a storage basin for treatment system effluent that would subsequently infiltrate and recharge the groundwater is proposed. Although the recharge program does not specifically address the loss of infiltration within the expansion area it is designed to generally meet the intent of the water district to minimize overdrafting.

58. Identified in This SEIR (G.8):

Implement the proposed Questa Engineering design specifications and standard construction BMPs during the construction phase of the South Branch of Sough Littlejohns Creek realignment. Construction of the realigned creek channel shall be implemented during the dry season.

59. Forward 2002 (F4):

Continued monitoring of the effectiveness of mitigation measures for leachate shall be performed by the responsible regulatory agencies (currently the RWQCB and, for the WMU-A, the DTSC). These agencies keep abreast of state-of-the-art information on leachate generation mechanisms and appropriate mitigation. If, in the future, monitoring demonstrates that the procedures above were insufficient to mitigate the effects of landfill-generated leachate, the agencies will, as appropriate, require additional mitigation measures.

60. ***Forward 2002 (F.9)***

Replacement wells (as well as additional wells north of the Austin Road Landfill to better define the leading edge of the plume) shall be installed to mitigate against the loss of old wells as presented in the JTD currently under review by the RWQCB. The RWQCB must approve the JTD's plans for the number and location of the new wells as part of their approval process, which is separate from the EIR approval process.

61. Austin 1994 (K3.c), Austin 2000 (K3.c)

The timing of the pumped discharge from the detention pond must not occur with the peak flow rate of Little John's Creek as this would impact downstream locations by increasing the flood hazard. Telemetry, which monitors the flow in the creek to determine the peak, should be provided. This information should then be used to coordinate the start-up of the pumps.

62. Austin 1994 (K5.e), Austin 2000 (K5.e)

The landfill operator would include practices and procedures in the SWFP to comply with AB 1760. The procedures would describe how the expanded landfill would salvage all economically feasible metallic discards.

63. Forward 1993 (C3)

Diesel fuel should be stored in a manner which provides for secondary containment.

G. SOILS AND GEOLOGY

64. (G.2) Proposed as Part of the 2013 Project (and incorporated by reference in this Project):

- Overall reduction—or, in some cases, elimination or improvement—of slope instability at the project site can be achieved through the implementation of the seismic design measures designed to meet CCR Title 27.

65. (G.3) Proposed as Part of the 2013 Project (and incorporated by reference in this Project):

- The applicant's Joint Technical Document references an erosion-control plan that delineates various actions to minimize erosion and sedimentation, including maintaining the effectiveness of the surface drainage control structures by keeping drainage ditches clear of debris and excessive vegetation and by making repairs, as necessary, to correct the effects of physical damage, erosion, settlement, or other events detrimental to effective operation of the drainage control system, and appropriate construction, landscaping, and maintenance of graded slopes and subsurface drainage systems. As part of that plan, grading operations would be scheduled to avoid the rainy season and be implemented by interim engineering control measures. Before grading is stopped, slopes would be directed to carry runoff to areas where erosion and sedimentation can be controlled. Truck beds would be hosed down to reduce soil spillage on paved roads and wind-blown dust. The proposed expansion area would incorporate the same features as used for the existing landfill. In addition, the relocation of Littlejohns Creek could lessen the sedimentation potential to the creek.
- Completed cells will be stabilized by the planting and maintenance of drought-resistant grasses. This will inhibit wind and water erosion and maximize the fertility of the soil in order to facilitate revegetation.
- Temporary plantings, geofabric drapes, and erosion-preventing diversions of surface water will be constructed as appropriate on temporary slopes.
- Regular operational and post-closure monitoring of erosion control structures and plantings will be done for a minimum of five years.

66. Forward 1993 (B.5)

Assessment of groundwater levels in monitoring wells shall be initiated within 24 hours following an earthquake event having a Modified Mercalli intensity of V or greater at the landfill. This will allow the water level database to be adjusted or seismic variations. In the event that anomalous water level changes are noted, a series of water quality sampling and testing events shall be initiated by the applicant in coordination with the RWQCB to detect an changes in water quality that may signify subsurface adjustments in landfill cells.

67. Forward 1993 (B.6)

Benchmarks shall be established (these could utilize monitoring well top of casing elevations), which will allow for determinations of settlement/ consolidation of fill materials in closed sections of the landfill on an annual basis and following significant seismic events (Modified Mercalli Scale of V or above). In the event that changes are noted, the cause should be determined as should the effect on leachate collection and recovery systems. Repair liners and LCRS as necessary. In addition, remedial grading should be accomplished to restore the original cap's function to repel water and direct surface runoff.

H. BIOLOGICAL RESOURCES

SJCOG/SJMSCP (Staff Contact: Laurel Boyd, 209-235-0600)

68. (F.1.) Identified in this SEIR:

Prior to site grading, the project sponsor shall obtain re-verification of the jurisdictional delineation conducted for the project; this will ascertain the extent of jurisdictional waters and wetlands on the

site, including the creek and potentially onsite storm control features (detention basins, dry ditches). The re-verified jurisdictional delineation will serve to confirm the acreage of jurisdictional area to be impacted and for which mitigation will be provided. Prior to site grading, the project sponsor shall obtain permits under Sections 401 and 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code for all impacts to jurisdictional resources; all permit conditions shall be implemented. At a minimum, an equivalent acreage of jurisdictional area to be impacted shall be established within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek (1:1 in-kind replacement of jurisdictional habitats impacted by the creek relocation), and if required by permit conditions, additional compensatory mitigation will be purchased from an USACE, RWQCB and/or CDFW-approved wetland mitigation bank. These mitigation components are discussed further below:

Onsite Replacement of Jurisdictional Habitat

A Creek Channel Mitigation and Monitoring Plan shall be prepared and submitted for agency review to ensure a "no net loss" of wildlife value or acreage of creek habitat. At a minimum, the Plan shall include the creation of the equivalent (in-kind) acreage of jurisdictional habitat within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek. The Concept Design Report (Questa 2017) indicates that approximately 1.87 acres of creek habitat would be created in the longer, relocated creek channel, so an increase in jurisdictional habitat (1.87 acres vs. 1.25 acres) is anticipated. The Project Sponsor shall ensure that the mitigation area, along with an appropriate upland buffer, are preserved in perpetuity via recordation of a deed restriction or similar easement.

The Creek Channel Mitigation and Monitoring Plan shall include the following details:

- The location(s) of mitigation areas, including the types and extent of each habitat type to be created.
- Mitigation for loss of existing jurisdictional habitat shall at a minimum include the creation of equivalent acreage of jurisdictional habitat present within the channel (as determined by the re-verified jurisdictional delineation). Mitigation habitats shall replace the existing functions and services provided by the impacted channel.
- All graded areas within the habitat restoration area shall be seeded with appropriate mixes of California native grass and forb species, developed by a qualified restoration ecologist.
- The stated goal of the mitigation effort shall be to establish self-sustaining creek channel habitat that shall not require long-term irrigation or maintenance.
- The mitigation site shall include the establishment of a vegetated upland buffer no less than 50 feet wide on both sides of the recreated channel, where practicable.
- Provide grading details, location and quantities of all plant materials to be planted or seeded, native seed mixes to be used on all bare ground surfaces, monitoring procedures and schedules, identification of remedial measures, and performance criteria to be used by the agencies to assess success or failure of the mitigation effort.
- Long-term monitoring over a minimum of five years shall be funded by the Project Sponsor, subject to approval by the regulatory agencies.
- Annual monitoring reports shall be submitted to each permitting agency.
- A wetland delineation and habitat map shall be prepared during the final year of monitoring and included in the final annual report.

Subject to review and modification by the regulatory agencies, specified success standards shall call for, at a minimum, 1:1 replacement of the creek channel that currently occurs, as detailed in the most recent wetland delineation report, at the end of the monitoring period.

[The wetland re-verification has been completed; grading will comply with the conditions in the US Army Corps of Engineers verification letter dated December 17, 2018 Initial Proffered Permit.]

Off-Site Wetland Mitigation

In addition to the approximately 1.87 acres of wetlands to be created onsite, if required as a permit condition, additional mitigation credits may be purchased from a qualified wetland mitigation bank with a Service Area that covers the project site, or as otherwise approved in advance by the USACE and RWQCB. For example, the expanded Service Area of the Cosumnes Floodplain Mitigation Bank covers the project site. This mitigation bank sells Floodplain Mosaic Wetlands credits (404) credits that would appropriately mitigate impacts to wetlands within the existing channel. This, in combination with the onsite jurisdictional habitat mitigation, would provide opportunities (if needed) to comply with a higher permit-required replacement ratio for wetland impacts, and also provide opportunities for riparian habitat mitigation.

In lieu of purchasing mitigation credits, if additional wetland mitigation (greater than the 1.87 acres proposed as part of the project) is required as a permit condition, the Sacramento District of the USACE has an “In Lieu Fee Program” to which the project sponsor may make payment. The fee is based on a fee schedule for various wetland habitat types. The fee is payable to the National Fish and Wildlife Foundation (NFWF) to be deposited in NFWF's Sacramento District Wetlands Conservation Fund.

69. (F.2.1) Identified in this SEIR:

To ensure that no aquatic vertebrates are stranded during abandonment of the existing South Branch of the South Fork of Littlejohn’s Creek, the following measures shall be implemented:

- Channel abandonment shall be restricted to the dry season (i.e., between June 15 and October 15).
- Channel abandonment shall occur only when the channel bottom has been dry for at least one week, that is, at least one week after the most recent release of water from Farmington Reservoir or any other sources.
- Prior to initiation of any work within the abandoned channel (e.g., construction of coffer dams, filling, connecting to the realigned channel), a qualified biologist approved by the USFWS and CDFW shall inspect the entire length of the work area for any stranded aquatic vertebrates; any stranded aquatic vertebrates shall be captured and relocated to the nearest body of water in the same stream system.
- Only a qualified biologist with all necessary federal and/or State permits may relocate fish and amphibians. Federally and State-listed species may only be relocated by biologist holding the appropriate federal or State permits. A record shall be maintained and submitted to the USFWS and CDFW of all fish and amphibians captured and relocated.
- Any observed mortalities of species-status species shall be immediately reported to the USFWS and CDFW.

70. (F.2.2) Identified in this SEIR:

Water shall be released into the restored South Branch of the South Fork of Littlejohn's Creek gradually to avoid creating a sediment plume downstream that could attract and cause mortality to Chinook salmon or steelhead from the San Joaquin River to enter the channel. After the relocation of the channel is completed and is ready to convey water, initial flows will be released at approximately 2 cubic feet/ second (cfs), and shall be monitored to assure that water is released gradually through the channel for the first week after re-opening. This reduced flow would avoid causing a sediment plume. The restored channel shall not be opened prior to or during a significant rainfall event, and initial releases into the channel shall be coordinated with the Central San Joaquin Water Conservation District to ensure no significant releases are scheduled during the initial opening of the channel.

71. (F.3) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for giant garter snake pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for "incidental take" of giant garter snake, the following measures required by the SJMSCP (SJCOG 2000) shall be applied:

A) A preconstruction survey for the species shall be conducted according to the requirements of the SJMSCP by a qualified biologist approved by the SJMSCP Technical Advisory Committee (TAC). If a giant garter snake is detected within the study area, the project will undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. The project shall also comply with any mitigation requirements specified for giant garter snake habitat by the SJMSCP TAC (SJCOG 2000). Avoidance and minimization measures may include the following, as specified by the TAC:

1. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the SJMSCP Joint Powers Authority (JPA), with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.
2. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.
3. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
4. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.
5. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:
    a) Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;
    b) Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
    c) Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.

6. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.
7. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
8. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
9. Other provisions of the USFWS *Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat* shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).

72. (F.4) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for western pond turtle pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for incidental take of the species, preconstruction surveys for western pond turtles shall be conducted within the project study area by a qualified biologist approved by the SJMSCP TAC. If the species is detected, within the study area, the project shall undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. Avoidance and minimization measures may include the following, as specified by the TAC:

1) When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has begun or will begin before nesting periods end (the period from egg laying to emergence of hatchlings is normally April to November). The buffer zones shall be maintained until the nesting season has ended.

73. (F.5a.) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for these species, both for direct impacts and loss of habitat. As specified in the SJMSCP, incidental take avoidance measures have been developed and must be implemented to conform to the SJMSCP; each species is discussed separately, below.

All SJMSCP Covered Bird Species are subject to the MBTA. The SJMSCP is based on the more stringent, federal standard for "take" pursuant to the FESA, which includes modification of habitat. Incidental Take Permits for SJMSCP-covered bird species are included in the SJMSCP, to allow for the conversion of habitat with appropriate creation of compensatory habitat for these species (SJCOG 2000). However, to conform to the MBTA, the Incidental Take Minimization Measures of the SJMSCP may not result in a "take", as defined by the MBTA, of SJMSCP Covered Bird Species. The Incidental Take Minimization Measures in Section 5.2.4 of the SJMSCP have been designed to avoid such a "take".

Swainson's Hawk

Swainson's hawks have been observed in the project vicinity and there is a known nest site in an oak tree on Austin Road, approximately 200 feet from the landfill boundary. Potentially suitable nest sites are also present near to the project site, particularly along the North Branch of the South Fork of Littlejohn's Creek. The proposed project does not include the removal of any potential nest trees, but construction activities would occur in proximity to a known nest site and potential nest trees. Given the use of the site as a landfill and associated truck traffic and landfill operation activities, baseline noise conditions are high on the site. Initial construction activities (e.g., soil excavation) could temporarily elevate onsite noise levels, thus potentially affecting an active Swainson's hawk nest (should one occur within 500 feet of the construction zone). Participation in the SJMSCP affords the project proponent Incidental Take authorization for Swainson's hawk pursuant to ESA, CESA and CEQA. To conform to the SJMSCP in regards to protecting potentially occurring nearby active nests, the following measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (February 16 through August 31), a preconstruction survey for Swainson's hawk nests shall be performed by a qualified biologist.
- If an occupied Swainson's hawk nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest. The setback distance may be smaller, subject to CDFW approval. Setbacks shall be marked by brightly colored temporary fencing.
- If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Golden Eagle

Although no suitable nesting sites for golden eagle are present onsite, potential nesting habitat occurs on adjacent properties. Participation in the SJMSCP affords the project proponent Incidental Take authorization for golden eagle pursuant to ESA, CESA and CEQA. As outlined in the SJMSCP[3], when a site inspection indicates the presence of a nesting golden eagle, the following measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the nesting season (*i.e.,* normally approximately February 1 - June 30), a preconstruction survey shall be performed by a qualified biologist.
- If an occupied golden eagle nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season (*i.e.,* normally approximately February 1 - June 30) for the period encompassing nest building and continuing until fledglings leave nests.
- This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied.
- Setbacks shall be marked by brightly colored temporary fencing.

[3] SJMSCP Chapter 5.2.4.21

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA as described and are consistent with the provisions of the BGEPA.

White-tailed Kite

White-tailed kite has been observed foraging in the project area and suitable nesting habitat is present in the immediate project vicinity. Participation in the SJMSCP affords the project proponent Incidental Take authorization for white-tailed kite in the form of habitat conversion provided the following Incidental Take Minimization Measures, as outlined in the SJMSCP[4], are followed:

- Prior to the initiation of tree removals/pruning, ground clearing, grubbing, grading or excavation activities scheduled to occur during the nesting season (*i.e.,* normally approximately February 15 – September 15), a preconstruction survey shall be performed by a qualified biologist.
- A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests.
- This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Burrowing Owl

Although burrowing owls were not detected within the study area during biological surveys in 2005 and a follow up surveys in 2008, 2012, 2014, and 2017, some suitable habitat could occur on the site and in the project vicinity and the species could colonize the site in the future. Participation in the SJMSCP affords the project proponent Incidental Take authorization for burrowing owl pursuant to ESA, CESA and CEQA; this provides both for the taking of the species incidental to otherwise lawful activities as well as the conversion of suitable burrowing owl habitat to non-suitable habitat. Consistent with the measures outlined in the SJMSCP[5] and CDFG 2012, the following impact minimization measures shall be followed:

- Consistent with the protocols outlined by the CDFG (2012 Appendix D), a “Take Avoidance Survey” shall be performed by a qualified biologist (as defined in CDFG 2012, page 5) no less than 14 days prior to the initiation of ground disturbance. A final survey shall be conducted 24 hours prior to ground disturbance.
- Ongoing rodent control measures at the landfill facility shall conform to the guidelines outlined in the SJMSCP, Appendix A[6] (see Impact F.10, below).
- The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins; tall vegetation will discourage colonization of the site by burrowing owl.

[4] SJMSCP Chapter 5.2.4.19
[5] SJMSCP Chapter 5.2.4.15
[6] USEPA 2000, cited in SJMSCP (Appendix A)

- Alternatively, if burrowing owls are not known or suspected on a project site and the area is an unlikely occupation site for red-legged frog, San Joaquin kit fox or tiger salamander, the Project Proponent may disc or plow the entire project site to temporarily close ground squirrel burrows and render the construction site temporarily unusable by burrowing owls.
- During the breeding season (i.e., 1 February through 31 August), occupied burrows shall not be disturbed in accordance with the following restrictions (CDFG 2012):
    - Between 1 April and 15 August, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low disturbance levels, and 500 m (1640 ft) for medium and high disturbance levels.
    - Between 16 August and 15 October, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low and medium disturbance levels, and 500 m (1640 ft) for high disturbance levels.
    - Between 16 October and 31 March, minimum setbacks from occupied burrows shall be 50 m (164 ft) for low disturbance levels, 100 m (328 ft) for medium disturbance levels and 500 m (1640 ft) for high disturbance levels.
- Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping. During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site may be evicted from the project site by passive relocation as described by the (CDFG (2012). Burrow exclusion and closure is not permitted during the breeding season.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Loggerhead Shrike

Loggerhead shrike has been observed foraging in the project area. Participation in the SJMSCP affords the project proponent Incidental Take authorization for loggerhead shrike pursuant to ESA, CESA and CEQA. Although little suitable nesting habitat is present on site, as outlined in the SJMSCP[7], the following incidental take avoidance measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 15), preconstruction survey shall be performed by a qualified biologist.
- A setback of 100 feet from loggerhead shrike nest sites shall be established and maintained during the nesting season (*i.e.,* February 1 to August 15) for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Northern Harrier and California Horned Lark

Although foraging northern harrier has been observed in the project vicinity and there is a

[7] SJMSCP Chapter 5.2.4.18

potential for foraging by California horned lark, nesting by these species on site is considered unlikely due to the limited extent of grassland habitat. Participation in the SJMSCP affords the project proponent Incidental Take authorization for northern harrier and California horned lark pursuant to CESA and CEQA. Nonetheless, as outlined in the SJMSCP[8], the following incidental take avoidance measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.
- A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Tricolored Blackbird

Suitable nesting habitat for this species does not occur on the project site, but it could nest in the riparian habitat associated with the North Branch of the South Fork of Littlejohn's creek. Participation in the SJMSCP affords the project proponent Incidental Take authorization for tricolored blackbird pursuant to CESA and CEQA. Nonetheless, as outlined in the SJMSCP[9], the following incidental take avoidance measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.
- A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

74. (F.5b.) Identified in this SEIR:

Any observations of Swainson's hawk, Golden eagle, white-tailed kite, burrowing owl, loggerhead shrike and/or California horned lark during the falconry program shall be recorded and monitored by the falconer. If any interactions (i.e. chasing) between the trained falcons and Swainson's hawks or other special status bird species are observed, this shall be documented and reported to the USFWS Migratory Bird Treaty Office and CDFW within 48 hours of occurrence. Appropriate additional measures to avoid impacts to special status birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFW.

75. (F.6) Identified in this SEIR:

Preconstruction surveys, consistent with the MBTA and the SJMSCP, shall be conducted for nesting birds during the nesting season (i.e., February 1 – September 1). Appropriate measures to avoid impacts to nesting birds shall be determined through consultation with the USFWS

[8] SJMSCP Chapter 5.2.4.17
[9] SJMSCP Chapter 5.2.4.17

Migratory Bird Treaty Office and CDFW.

76. (F.8) Identified in this SEIR:

The project shall comply with the SJMSCP mitigation requirements for the conversion of row and field crop lands (SJCOG 2000). Under the SJMSCP (2000), each acre of Swainson's hawk habitat (i.e., Agricultural Habitat Lands) converted to non-open space uses would be mitigated by the establishment of 1 acre of Row and Field Crop/Riparian Preserve (a 1:1 mitigation ratio). This measure would apply to the 8.6 acres of land to be developed in the southern portion of the property.

77. (F.10) Identified in this SEIR:

Rodenticides and methods of application used at the landfill shall be reviewed by a qualified biologist approved by the SJMSP TAC, to determine if they reflect the most effective and safe methods for controlling rodents. That biologist shall make recommendations for improvement if needed.

85. (H.9) Identified in 2013 EIR:

The SJMSCP recommends that within habitat preserves, lighting should be directed downward and away from preserve areas (through the use of shields) to reduce impacts to areas occupied by SJMSCP Covered Species (SJCOG 2000). Night lighting with sodium lamps with sharp cutoff angles shall be used to focus light in active landfill areas (target areas) and to avoid nighttime lighting of adjacent open areas and trees.

87. Austin 1994 (F2.a) (similar), Austin 2000 (F2.a)

Under current project plans, 31 of the 32 valley oaks are along the perimeter of the site or are in the designated wildlife preserve adjacent to the creek and would not be removed.

88. Austin 1994 (F2.b) (similar), Austin 2000 (F2.b)

Prior to initiation of any activity within a 100-foot radius of a valley oak proposed for retention, the project proponent shall install clearly visible temporary fencing around the dripline of the Valley oak to prevent inadvertent damage during on-site activities. Fencing shall be removed upon completion of activity within the oak's vicinity. Site workers shall be advised of the sensitivity of on-site oaks to disturbance.

89. Austin 1994 (F2.c) (similar), Austin 2000 (F2.c)

Where avoidance of a valley oak(s) as specified above is determined infeasible, the project proponent shall replace each oak as required by the County's Natural Resources Regulations: three oaks shall be planted in appropriate locations for each oak removed. Replacement trees shall be the same species as the removed trees. Replacement trees shall be planted on the site in association with the Wetland Mitigation and Monitoring Plan described above.

90. Austin 1994 (F2.d) (similar), Austin 2000 (F2.d)

To ensure the success of mitigation, planted and retained trees shall be monitored for a period of five years following initial disturbance within the vicinity of a retained tree or following planting of a replacement tree. If, during the course of monitoring, a significant decline in the health of planted or retained trees is identified by a qualified arborist, the tree shall be replaced as described above.

91. Austin 2000 (F14.a)

Pre-construction surveys for greater western mastiff bat should be conducted prior to removing any trees from the project site. These pre-construction surveys may be required and funded by the SJMSCP JPA and should be conducted by a biologist with experience surveying for bats, and the surveys should not occur any more than 30 days prior to the proposed tree removal. If no special-status bats are identified during the pre-construction survey(s), then no impacts to these bats would be expected to occur from construction of the proposed project. If, however, greater western mastiff bat is identified in any of the trees proposed for removal, reproductive status should be determined.

92. Austin 2000 (F14.b)

(Greater western mastiff bat) Maternity sites should be avoided until bats finish rearing young. Prior to the bats finishing rearing their young, bat roosts/maternal "bat houses" should be placed within a protected area in the vicinity of the roosting/maternity sites if possible. As soon as young are flying and foraging, the maternity sites should be sealed. Similarly, once bat houses are installed in protected areas, bats should be evicted from their roost sites within the project construction zone (i.e., should be evicted from the trees to be removed). Removal of roost sites should occur during dusk or evening after bats have left the sites unless otherwise approved. These measures are consistent with the SJMSCP.

93. Austin 2000 (F14.c)

(Greater western mastiff bat) Pre-construction surveys would prevent direct take of individuals or maternity sites. No immediate replacement of roosting habitat has been proposed. If a maternity roost or occupied roost is detected during pre-construction surveys, the SJMSCP JPA shall provide adequate replacement for loss of occupied habitat should be designed and implemented with input from CDFG. Implementation of these mitigation measures would reduce impacts to levels considered less than significant.

I. PUBLIC SERVICES AND UTILITIES

94. (I.1) Proposed as Part of the Project:

The landfill supervisor will be responsible for providing overall site security during normal working hours.

All areas and facilities, other than those expressly designated for use by haulers, will be considered restricted areas.

The landfill will have a perimeter barrier or topographic constraints designed to discourage unauthorized entry by persons or vehicles.

Areas within the site where hazardous or suspected hazardous materials are stored will be properly identified and secured.

The entrance to the site will have a lockable gate, which will be locked outside of the usual operating hours.

Salvaging and scavenging will be prohibited at the landfill, except for authorized materials

recovery programs.

95. (I.2) Proposed as Part of the Project:

The project sponsor will continue to provide fire suppression equipment and procedures that are equivalent in effectiveness to those currently employed at the existing Forward Landfill, as described in the Site Health and Safety Program. The project sponsor will furnish information regarding proposed disposal operations and fire suppression measures at the proposed expanded landfill to the Lathrop-Manteca Fire District.

Existing fire protection facilities will be maintained (see also Impact/Mitigation Measure E.1).

96. (I.3) Proposed as Part of the Project:

The project sponsor will continue to apply, to the entire consolidated landfill, the safety procedures currently employed at the existing Forward Landfill and described in the Workplace Injury and Illness Prevention Plan. The project sponsor will furnish information regarding proposed disposal operations and safety procedures at the Austin Road Landfill, and the proposed consolidated landfill, to the Lathrop -Manteca Fire District.

Monthly inspections of all facilities for safety will be conducted in accordance with the Safety Checklist prepared by the National Solid Waste Management Association (NSWMA) or other checklist of equivalent scope and detail.

Safety meetings with employees will be conducted to disseminate safety information, in accordance with procedures described in the JTD.

Personal protective gear will be provided for the safe handling of solid waste, as described in the JTD.

97. (I.4) Proposed as Part of the Project:

CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT (Staff Contact: Ann Okubo, 209- 937-8250)

If leachate is delivered to the City of Stockton Regional Wastewater Control Facility, the project sponsor will provide for independently corroborated test results to the City to demonstrate the chemical composition of the leachate extracted from the proposed consolidated landfill project. Monitoring and testing of landfill-generated leachate will meet the requirements of the City of Stockton Wastewater Ordinance and the City Municipal Utilities Department.

If leachate quality is not acceptable for disposal at the Regional Wastewater Control Facility, the project sponsor will either have the leachate collected and disposed off-site by a licensed Treatment and Disposal Facility, or will develop on-site leachate processing that will result in treated leachate that is acceptable for disposal at the wastewater treatment plant or acceptable to regulatory agencies for on-site use. The design and operation of any on-site leachate processing that is implemented will comply with all applicable laws and regulations.

J. CULTURAL RESOURCES

MLD YOKUT TRIBE(Contact: Kathy Perez, (209) 887-3415)/SHERIFF'S OFFICE(Staff Contact: Patrick Withrow, (209) 468-4400)

98. (J.1) Identified in this EIR:

An archaeological monitor and a Native American monitor shall be retained to observe project-related ground disturbing activities in order to identify potentially buried resources. In the event that any of the archaeological site indicators described above are found, work should be halted within a zone established by the project archaeologist and Native American monitor until a plan for the evaluation of the resource under CEQA guidelines has been submitted to the appropriate permitting agency for approval.

If any potential cultural resources are encountered during any ground disturbing activities, the following measures shall be implemented:

(a). If prehistoric archaeological resources are discovered during excavation and construction of the proposed project, the project sponsor along with a qualified archaeologist and Native American monitor shall suspend all work in the immediate vicinity of the find pending site investigation by a qualified archaeologist and a Native American monitor to assess the materials and determine their significance. If the qualified archaeologist and Native American monitor determine that the find has the potential to be a historical resource per California Register of Historical Resources (CRHR) criteria, the project sponsor shall provide funding and time to allow recovering an archaeological sample or to implement avoidance measures. Work could continue at other locations while archaeological mitigation takes place.

(b). Evaluative testing, normally consisting of limited hand excavation to retrieve information and materials from the archaeological site, would be needed to demonstrate the eligibility of the resource to be included on the CRHR. If eligibility is established, then a plan for mitigation of impacts to the resource should be submitted to the San Joaquin County Community Development Department for approval before any construction related earthmoving activities are allowed inside the zone designated as archaeologically sensitive by the project archaeologist and Native American monitor. The plan must result in the extraction of sufficient volumes of non-redundant archaeological data so as to address important regional research considerations, must be performed by qualified professionals, and must result in detailed technical reports. Mitigation can take the form of additional data retrieval through hand excavation coupled with archaeological and Native American monitoring of all soils from the archaeologically sensitive zone. Monitoring is aimed at identifying, recording and/or removing archaeological materials and information for analysis, and also serves to limit damage to human remains (non-destructive analysis), a typical component of both seasonal and year-round villages in the valley.

(c). The project sponsor shall allow only a qualified archaeologist, and a Native American monitor to collect any prehistoric cultural resources (except human remains and burial associated grave goods) discovered on the site. During a pre-construction meeting the qualified archaeologist and Native American monitor would review with the construction crews the types of archaeological materials that could be present at the site, and that if any construction personnel

observes any potential archaeological materials that they inform the archaeologist and Native American monitor of the location of the potential resource.

Should buried, unforeseen archaeological deposits be encountered during any project construction activity, work shall cease within a 50-foot radius of the discovery. The County shall ensure that a qualified professional archaeologist who meets the federal *Secretary of the Interior's Standards* in archaeology is retained to assess the significance of the find and recommend avoidance or treatment measures; work shall not resume until appropriate treatment has been completed. In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code Section 15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the City and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed.

(d). In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code Section 15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the County and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed. If recommendations are made and not accepted, during the mediation period, the Native American Heritage Commission shall mediate the issue and the Human Remains shall remain in the possession of the MLD.

K. VISUAL QUALITY

99. (K.3) Proposed as Part of the Project:

Native or drought-tolerant trees, shrubs, and grasses will be used in landscaping to conform to the natural vegetation of the area.

Working faces of the landfill will be minimized to reduce their visibility.

To the extent feasible, the top and side slopes of the landfill will be seeded with a mixture of native grasses and wildflowers that would visually blend with plants at the project site.

Upon closure, the top and side slopes of the landfill will be planted with native grasses to the extent feasible.

100. (K.5) Proposed as Part of the Project:

The use of highly reflective surface materials in constructing structures on the site will be prohibited.

Exterior building materials will be painted or otherwise treated with muted earthtone colors.

Screening vegetation has been planted along the Austin Road boundary of the site at the time this DEIR was prepared. This fulfills part (b) of Mitigation Measure K.4 in the 2002 Final EIR for the existing landfill (San Joaquin County, 2002), which is a condition of the permits for the existing landfill. The remainder of Mitigation Measure K.4 (reproduced in full below) is also a condition of the existing permits.

(a) Lighting for nighttime operations at the working face and other landfill facilities shall consist of sodium lamps with sharp cutoff angles and downward shielding and, to the extent feasible, shall be oriented in a direction that is not visible from off-site locations.

(b) Dense screening vegetation shall be planted [and maintained for the life of the project]along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations.

(c) For any future locations of the working face at which the screening vegetation in Mitigation Measure (b) above would not shield residents and motorists along Austin Road from night lighting, the project sponsor shall install temporary screens at the working face to block night lighting from residences and motorists along Austin Road.

***101. Forward 2002 (K.4).* (First paragraph implemented after 2002 EIR was prepared):**

~~*Implement the procedure proposed as part of the project under Mitigation Measure 37 (K.3): Dense screening vegetation shall be planted along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations.*~~

For any future locations of the working face at which the screening vegetation in the Mitigation Measure above would not shield residents and motorists along Austin Road from night lighting, the project sponsor shall install temporary screens at the working face to block night lighting from residences and motorists along Austin Road.

102. Austin 1994 (B3.d), Austin 2000 (B3.d)

At any time in the development of the expanded landfill when additional lighting is proposed, preliminary lighting designs should be sent to the Northern California Women's Facility for review and comments.

103. Proposed as Part of the Project:

- Daily inspection will be conducted to control litter on- and off-site, including the North and South Branches of the South Fork of Little Johns Creek, approach roads, entrance facilities, the transfer station/resource recovery facility, portable litter control fences,

landfill perimeter fence, leachate impoundments, and storm water facilities including ditches, berms, and detention/sedimentation basins.

- All trucks will be tarped upon entering and exiting the facility. This policy will be strictly enforced. In accordance with San Joaquin County Ordinance No. 28870, adopted September 29, 1981 (Title 5 Health and Sanitation, Division 2. Solid Waste Collection and Disposal, Section 5-2502), tarps will be placed over open loads to avoid littering during transport of waste.
- Management of the daily working fill face to the smallest practical area with immediate compaction to minimize the area and debris subject to the impacts of wind.
- If possible, on windy days the daily fill face tipper location would be selected for its protection to minimize effects of wind (i.e., tipper facing into wind adjacent to the leeward sidewall, or sheltered by completed fill deposits).
- Waste that is more susceptible to windblown distribution may, on windy days, be worked immediately into the fill face and covered with a layer of daily cover, as needed, or the waste may be excluded from the site.
- Portable skid-mounted litter fences may be provided for deployment downwind as close as practical to the working area, as needed.
- Semi-permanent fencing may be provided around the fill area as an additional barrier to the migration of litter off-site when litter has not been contained by the portable litter fences. (Examples of additional barriers include but not limited to, a four-foot minimum temporary construction fence and/or a ten-foot or higher semi-permanent fence.)

  The utilization will be continually evaluated and the fence will be relocated or added as needed.
- Permanent fencing (ten-foot high with an additional three-foot kicker) may be constructed with possibility of placement on an eight-foot high berm.
- On very windy days when all other procedures are not successful in controlling blowing litter, the operator may apply cover material more frequently or immediately to the incoming waste load. As a last resort due to the facility's obligation to provide continued disposal service to its clientele, the operator may consider closing down the facility to incoming waste.
- Buffer zones resulting from required facility setbacks along the site's perimeter will provide some protection of adjacent properties.
- As a final control measure, personnel will be dispatched, as needed or daily if conditions require, to collect any litter that has escaped the above control measures. The personnel will collect litter from the facility and the facility access, as well as adjoining property, provided that the property owner allows access. If additional assistance is required beyond site personnel, temporary service agencies will be contacted.
- If litter is distributed by the wind into trees and bushes on facility property or adjoining properties, portable lifts may be employed to retrieve the litter.
- Portable litter vacuums may be used to collect litter that has accumulated on litter fences.
- The main highway leading to the site will be routinely inspected for litter. If the highway has litter associated with the trucks entering the facility, then the litter will be picked up on a routine basis. All necessary safety precautions will be followed.

- Before and after photos of any litter removal effort may be taken in the event anyone questions the level of effort spent on litter collection.
- Forward will fund signage along Austin, Arch, and French Camp Roads stating that all disposal site traffic loads shall be covered in accordance with Vehicle Code 23115(a).
- A 24-hour Litter hotline will be established. [Tel number: (209) 982-4298].
- A Litter Control Manager position will be created. The Litter Control Manager will be responsible for periodic inspection of loads for tarping, issuing notifications to vehicles for non-compliance with tarping procedures, responding to responding to litter complaints, and providing laborers to collect litter in response to verified complaints associated with Landfill operations.
- Additional portable litter fencing will be purchased to enhance the existing portable litter fences used at the active face.

104. (K.7) (same as 15 (D.1, above): **Identified in This EIR:**

Implement the fugitive dust control procedures and mitigation measures identified in Mitigation D.1.

105. Austin 1994 (B5.c), Austin 2000 (B5.c)

Trucks and loaders would be prevented from dumping materials at heights greater than the minimum necessary to ensure clearance of waste from the vehicle.

106. Austin 1994 (B5.e), Austin 2000 (B5.e)

Routine maintenance of roads would be conducted.

107. Austin 1994 (B5.f), Austin 2000 (B5.f)

The amount of disturbed, unvegetated area would be minimized.

108. Austin 1994 (B5.g), Austin 2000 (B5.g)

The project shall consider the use of alternative daily covers, such as synthetic foam or fabric, recycled paper made into slurries, or chipped green waste to reduce dust and haze

2) <u>DEPARTMENT OF PUBLIC WORKS</u> (Staff Contact: Awni Tawa, 468-3000)

a) The developer shall provide drainage facilities in accordance with the San Joaquin County Development Standards. Retention basins shall be fenced with six (6) foot high chain link fence or equal when the maximum design depth is 18 inches or more. Required retention basin capacity shall be calculated and submitted along with a drainage plan for review and approval, prior to release of the grading permit. (Development Title Section 9-1135)

b) A copy of the Final Site Plan shall be submitted prior to release of the improvement plan.

c) Permit Registration Documents (PRD's) shall be filed with the State Water Resources Control Board (SWRCB) to comply with the State "General Permit for Storm Water Discharges Associated with Construction Activity". The Waste Discharge Identification (WDID) Number

issued by SWRCB shall be submitted to the Department of Public Works for the file. Contact SWRCB at (916) 341-5537 for further information. Coverage under the SWRCB General Construction Permit Order 2009-0009-DWQ shall be maintained throughout the duration of all phases of the project.

d) Prior to release of the improvement plan or any physical alteration or relocation of the South Fork of South Littlejohns Creek, a Conditional Letter of Map Revision (CLOMR) shall be prepared per Code of Federal Regulations, Title 44, Sections 65.3 and 65.7 requirements and approved by the Federal Emergency Management Agency. Within six months of completion of creek relocation work, the applicant shall apply to FEMA for a Letter of Map Revision (LOMR). LOMR officially revises the current Flood Insurance Rate Map to show changes to floodplains, floodways, or flood elevations.

e) The project is located along a segment of the South and the North Forks of South Littlejohns Creek, which is a regulated stream per California Code of Regulations, Title 23, Table 8.1. Prior to the release of the improvement plan, a Central Valley Flood Protection Board Encroachment Permit will be required for all work done on the Creek, which will require an endorsement by the San Joaquin County Flood Control and Water Conservation District.

f) All new construction and the substantial improvement of any structure, including conversion of existing structures, in the area of special flood hazard shall be elevated or floodproofed in accordance with the San Joaquin County Ordinance Code Section 9-1605.12 (a), (b), and (c).

g) Prior to release of the improvement plan, the applicant shall submit a plan outlining compliance with California regulations on “Mandatory Commercial Organics Recycling” (AB-1826) and “Short-Lived Climate Pollutants (SLCP): Organic Waste Methane Emissions Reductions” (SB-1383).

Informational Notes:

This property is subject to the requirements of San Joaquin County Mosquito & Vector Control District (209-982-4675) and the California Health and Safety Code for the prevention of mosquitoes. Best Management Practices (BMP) guidelines for stormwater devices, ponds and wetlands are available.

All future building permits for projects located within a Special Flood Hazard Area at the time of permit issuance shall meet the San Joaquin County flood hazard reduction requirements (Title 9, Chapter 9-1605) and all requirements of the State of California (CCR Title 23) that are in force at the time of permit issuance. As an example, these requirements may include raising the finish floor elevation one foot above the expected flood level and/or using flood resistant materials.

3) <u>ENVIRONMENTAL HEALTH DEPARTMENT</u> (Staff Contact: Robert McClellon, [209] 953-7698)

The following requirements have been identified as pertinent to this project. Other requirements may also apply. These requirements cannot be modified.

a) Submit application to revise Solid Waste Facility Permit (SWIS 39-AA-0015) and Reports of Facility Information (RFI) 180 days prior to implementing propose changes.

b) Any geotechnical drilling shall be conducted under permit and inspection by The Environmental Health Department (San Joaquin County Development Title, Section 9-1115.3 and 9-1115.6).

c) Before any hazardous materials/waste can be stored or used onsite, the owner/operator must report the use or storage of these hazardous materials to the California Environmental Reporting

System (CERS) at cers.calepa.ca.gov/ and comply with the laws and regulations for the programs listed below (based on quantity of hazardous material in some cases).

- Any amount but not limited to the following hazardous waste; hazardous material spills, used oil, used oil filters, used oil-contaminated absorbent/debris, waste antifreeze, used batteries or other universal waste, etc. – **Hazardous Waste Program** (Health &Safety Code (HSC) Sections 25404 & 25180 et sec.)
- Onsite treatment of hazardous waste – **Hazardous Waste Treatment Tiered Permitting Program** (HSC Sections 25404 & 25200 et sec. & California Code of Regulations (CCR), Title 22, Section 67450.1 et sec.)
- Reportable quantities of hazardous materials-reportable quantities are 55 gallons or more of liquids, 500 pounds for solids, or 200 cubic feet for compressed gases, with some exceptions. Carbon dioxide is a regulated substance and is required to be reported as a hazardous material if storing 1,200 cubic feet (137 pounds) or more onsite in San Joaquin County – **Hazardous Materials Business Plan Program** (HSC Sections 25508 & 25500 et sec.)
- Any amount of hazardous material stored in an Underground Storage Tank – **Underground Storage Tank Program** (HSC Sections 25286 & 25280 et sec.)

  (1) If an underground storage tank (UST) system will be installed, a permit is required to be submitted to, and approved by, the San Joaquin County Environmental Health Department (EHD) before any UST installation work can begin.

  (2) Additionally, an EHD UST permit to operate is required once the approved UST system is installed.

d) Storage of at least 1,320 gallons of petroleum aboveground or any amount of petroleum stored below grade in a vault – **Aboveground Petroleum Storage Program** (HSC Sections 25270.6 & 25270 et sec.)

- **Spill Prevention, Countermeasures and Control (SPCC) Plan requirement**

e) Threshold quantities of regulated substances stored onsite - **California Accidental Release Prevention (CalARP) Program** (Title 19, Section 2735.4 & HSC Section 25531 et sec.)

- **Risk Management Plan requirement for covered processes**

4) SAN JOAQUIN COUNCIL OF GOVERNMENTS (Staff Contact: Laurel Boyd, [209] 235-0600)

a) This project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). This can be up to a 30-day process, and it is recommended that the project applicant contact SJMSCP staff as early as possible. Please contact SJMSCP staff regarding completing the following steps to satisfy SJMSCP requirements:

b) Schedule a SJMSCP Biologist to perform a pre-construction survey prior to any ground disturbance.

c) Sign and return Incidental Take Minimization Measures to SJMSCP staff (given to the project applicant after the pre-construction survey is completed).

d) Pay the appropriate fee based on SJMSCP findings.

e) Receive the Certificate of Payment to release the required permit.

ATTACHMENT "A"

FORWARD INC. LANDFILL 2018 EXPANSION PROJECT

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

(State Clearinghouse No. 2008052024)

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

May 2019

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1.0 INTRODUCTION

This statement of findings addresses the potentially significant environmental impacts associated with the Forward Inc. Landfill 2018 Expansion Project (sometimes hereafter referred to as the "2018 Expansion Project" or "project") located in the unincorporated San Joaquin County, California and is made pursuant to Section 15091 of the California Environmental Quality Act ("CEQA") Guidelines, which provide that:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

(b) The findings required by subsection (a) shall be supported by substantial evidence in the record. Section 15092 of the CEQA Guidelines further stipulates that:

A public agency shall not decide to approve or carry out a project for which an EIR was prepared unless either:

(1) The project as approved will not have a significant effect on the environment, or

(2) The agency has:

(A) Eliminated or substantially lessened all significant effects on the environment where feasible as shown in findings under Section 15091, and

(B) Determined that any remaining significant effects on the environment found to be unavoidable under Section 15091 are acceptable due to overriding concerns as described in Section 15093.

According to Section 15093 of the CEQA Guidelines:

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

(b) When the lead agency approves a project, which will result in the occurrence of significant effects which are identified in the Final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

(c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the Notice of Determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

Further, because the San Joaquin County Board of Supervisors previously certified a Final EIR for the larger 184-acre Forward Inc. Landfill 2013 Expansion Project (the "2013 Expansion Project"), but did not approve that project, this is a Supplemental EIR prepared pursuant to Sections 15162 and 15163 of the CEQA Guidelines. Sections 15162 and 15163 provide that:

Section 15162 (Subsequent EIRs and Negative Declarations):

(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was

certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

<u>Section 15163 (Supplement to an EIR)</u>:

(a) The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

(b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

(c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.

(d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.

(e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

The County finds that a Supplemental EIR, supplementing the certified FEIR for the 2013 Expansion Project, is appropriate because while some mitigation measures have changed, the severity of most of the impacts addressed in this document have been reduced or not materially changed from the FEIR for the 2013 Expansion, which addressed a much larger project. There are no significant new or significantly increased impacts that would be caused by the revised project compared with the project analyzed in the prior certified FEIR, or any new circumstances or mitigation measures that would substantially reduce any impacts analyzed in the prior FEIR. All significant impacts described in the prior FEIR will still be significant based on the analysis in this Supplemental EIR.

The Final SEIR includes updated discussions of all items that may have substantially changed, while referencing and explaining why the remaining topics have not changed since the issuance of the FEIR. There is no new information of substantial importance regarding new or significantly increased environmental impacts of the revised project not analyzed in the prior FEIR. Nor are there any new mitigation measures of significant impacts or alternatives identified in the prior FEIR previously found not to be feasible that (a) are now feasible and (b) that would substantially reduce one or more significant effects on the environment, but (c) the project proponent declines to adopt. The contents of this Supplemental EIR demonstrates that impacts analyzed for the prior project will either be the same or less severe and less significant than those impacts analyzed in the prior FEIR. Further, the project proponent has accepted all mitigation measures for significant impacts of the revised project and that are recommended in this SEIR.

In addition, per CEQA Guideline § 15163, the lead agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The prior FEIR certified by the County Board of Supervisors was for a 184-acre expansion of the Forward landfill on an undisturbed parcel adjacent to the existing Forward landfill, which would have added 54 million cubic yards of additional disposal capacity to the landfill. The revised project that is the subject of this Supplemental EIR is for only a 17.3 acre expansion located

within the existing disturbed area of the landfill that will add only 8.1 million cubic yards (mcy) of disposal capacity. Therefore, in all respects the revised 2018 landfill expansion project is a much smaller alternative project that will have less severe environmental impacts that the original 184-acre expansion. Specifically,

1. The revised project involves only 9.4 percent of the total acreage of the prior project, and the revised smaller project is an infill project on disturbed land versus the prior project which was on undisturbed land;
2. The revised project only adds 15.0 percent of the increased landfill disposal capacity of the prior 2013 Expansion project; and
3. The revised project involves a similar alignment (3,000 feet in the current project versus 3,000 feet in the former project) of the South Fork of South Littlejohns Creek.

Therefore, the revised project is substantially smaller in most important respects than the former project analyzed in the FEIR certified by the Board of Supervisors. Based on this comparison, as well as the impact analyses in the SEIR, the revised project will not result in changes in the former project that will result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Further, no changed circumstances have occurred that would require major revisions of the previous FEIR due to the occurrence of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The document is organized in a manner such that there is no need for the reader to go back and review the FEIR for the major impact topics. Each of the sections in this SEIR are independent of, and supersede their predecessors in the FEIR. Similarly, the topics not addressed in detail in this SEIR are fully addressed in the certified FEIR. Both documents have been made available for ready review by the public. In addition, the County provided an extended 58-day review period rather than the statutorily required a 45-day period.

As noted in the SEIR, the EIR for the former project was and is available on the County of San Joaquin website at: http://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/Environmental%20Impact%20Reports/FORWARD%20LANDFILL%20EXPANSION%20-%20FINAL%20EIR%20(46.9%20MB).pdf
In addition, for ease of reference and implementation, the Mitigation Monitoring and Reporting Program in this Final SEIR includes all applicable mitigation measures, including those carried over from the FEIR.

Therefore, the County concludes that a Subsequent EIR is not required for this revised and much smaller "in fill" landfill expansion project, and that a Supplemental EIR is authorized pursuant to the CEQA Guidelines cited above.

As required by CEQA, San Joaquin County, in adopting these findings, must also adopt a Mitigation Monitoring and Reporting Program ("MMRP") for the project. The MMRP, which is incorporated by reference and made a part of these findings, meets the requirements of Section 15097 of the CEQA Guidelines by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the project.

Whenever these findings specifically refer to and adopt a mitigation measure that will avoid or mitigate a potentially significant impact, that specific mitigation measure is hereby made a Condition of Approval of the Forward Inc. Landfill 2018 Expansion Project.

1.1 PROJECT SUMMARY AND OBJECTIVES

The 2018 Expansion Project would make the following changes to the currently permitted landfill:

- Landfilling of an 8.7-acre parcel in the northeast portion of the site within the currently permitted landfill boundary.
- Landfilling of approximately 8.6 acres in the south area
- The south area expansion would require realigning about 3000 feet of the South Fork of South Littlejohns Creek to a 3300-foot alignment along the southern and eastern boundaries of the site, along with a new bridge across the creek.
- The expansion would increase total landfill capacity by up to 8.12 million cubic yards beyond currently permitted levels, which would increase the remaining Class II landfill capacity by approximately 8.12 million cubic yards (cy), from approximately 15.7 million cy currently permitted to approximately 24 million cy.
- Landfill expansion would allow disposal at the landfill to continue until approximately 2036, a six-year increase from the current anticipated closure date of 2030.

Site operations would remain mostly as described in the 2013 EIR (discussed below). The complete 2018 Expansion Project, including the components that are unchanged, is described in Chapter II, Project Description, of this SEIR.

<u>The Project's Modifications To The 2013 Forward Landfill FEIR Expansion Project</u>

In contrast to the current Project, the 2013 Forward Landfill Expansion EIR analyzed an expansion of the landfill that included the following substantial modifications to the landfill:

- Expand the Forward Landfill to contiguous parcels including an approximately 184-acre parcel ("Brocchini parcel") to the southwest of the existing landfill site and an approximately 10-acre parcel in the northeast of the existing landfill. In addition, approximately 11 acres of currently permitted landfill disposal area in the southern portion of the Forward Landfill would be relocated within the currently permitted landfill boundary due to realignment of the South Fork of South Littlejohns Creek (also known as the South Branch of the South Fork of Littlejohns Creek).
- Increase the remaining landfill capacity by approximately 32.0 million cubic yards (cy) to approximately 54.0 million cubic yards (cy). All of the increase would be Class II landfill space and would extend the landfill closure date to approximately 2039.
- Relocate approximately 3,000 feet of the South Fork of South Littlejohns Creek (which currently traverses the landfill) to the southeastern boundaries of the site to provide

additional separation of the creek from the landfill. The relocated creek will be approximately 3,200 feet in length.

- Allow cannery waste processing in areas of site that are not being used for disposal at the time.

The Board of Supervisors certified the Forward Landfill Expansion Final Environmental Impact Report. However the project application required an override to the Airport Land Use Plan by the County Board of Supervisors, which was not approved.

In 2014, Forward proposed a smaller increase in permitted landfilling capacity that did not include the previously proposed expansion of landfilling operations on the 184-acre Brocchini parcel. This proposed increase in landfill acreage was entirely within the boundary of the 567-acres permitted under the current land use permit (UP-00-0007/ER-00-0002) approved by the Board of Supervisors on April 8, 2003.

A Draft Supplemental EIR (DSEIR) was circulated for this proposed expansion in December 2014 and comments were received, but Forward abandoned the project before the Final Supplemental EIR was completed.

The 2018 Expansion Project described in this Supplemental EIR is very similar to the 2014 proposal. It has a smaller increase in permitted landfilling capacity than the 2013 project and does not include any expansion of landfilling operations onto the Brocchini parcel. The additional proposed landfill acreage is entirely within the boundary of the 567-acres permitted under the current land use permit (UP-00-0007/ER-00-0002) approved by the Board of Supervisors on April 8, 2003.

Project Objectives

CEQA Guidelines Section 15124(b) requires that the project description contain a clearly written statement of objectives, including the underlying purpose of the project. The proposed 2018 Forward Landfill Expansion Project would provide additional refuse capacity for the County of San Joaquin and the region. The objective of the 2018 Expansion Project is to meet both local and regional needs including the following specific objectives:

- Provide cost-effective, long term stable disposal capacity for municipal solid waste for existing and anticipated users of the Forward Landfill facility for that portion of the waste stream that cannot be recycled or diverted from landfilling, by the continued design, construction and operation of a centrally located and accessible, state-of-the art, environmentally-safe sanitary landfill which meets or exceeds local, State and Federal standards.
- Support industrial and commercial growth in the County and surrounding communities by providing regional, centrally located and accessible Class II disposal capacity that no other currently permitted landfill in the County can provide. Class II disposal facilities provide for the environmentally safe containment of items such as contaminated soils, various types of construction

and demolition wastes, ashes, and other materials that are critical to continued industrial and commercial growth and development in the County and surrounding regions.

- Assist the County and surrounding regions in meeting the current California state legislative mandate for recycling or beneficially reusing the non-hazardous waste stream and thus diverting from landfilling, and also assist these communities in meeting increased state recycling and beneficial reuse goals, by providing for the recycling and beneficial reuse of several categories of waste materials received at the facility, such as green waste, wood waste, construction and demolition debris, shredder wastes, shredded tires, and other consumer recyclables.
- Provide land area and facilities for an efficient, combined resource recovery and disposal operation to reduce or eliminate the need for solid waste to be delivered to multiple locations to achieve processing, beneficial re-use, and residuals disposal and thereby reduce green-house gas impacts and capital expenditures for improvements to roadways and associated infrastructure, such as transfer stations.
- Provide disposal capacity for disaster related debris, such as from fires, floods, and earthquakes.

1.2 ENVIRONMENTAL REVIEW PROCESS

In accordance with the requirements of CEQA and the CEQA Guidelines, a Notice of Preparation ("NOP") of a Draft Supplemental Environmental Impact Report ("Draft SEIR" or "DSEIR") was filed with the State Clearinghouse ("SCH") Office of Planning and Research ("OPR") on May 18, 2018 and distributed for public and agency review. Comments received on the NOP and a summary of scoping meeting comments were included in Appendix A of the Draft SEIR.

On September 5, 2018, the San Joaquin County Department of Community Development ("Lead Agency") released for public review a Draft Supplemental Environmental Impact Report for the Forward Inc. Landfill 2018 Expansion Project (State Clearinghouse [SCH]# 2008052024). The required 45-day public review and comment period on the Draft SEIR began on September 5, 2018 and closed at 5:00 p.m. on November 2, 2018. A public hearing was held on October 30, 2018 to receive further comments. During this public review period, the County received written comments on the Draft SEIR and oral comments at the public hearing. Section 15088 of the CEQA Guidelines requires that the lead agency responsible for the preparation of an EIR evaluate comments on environmental issues received from parties who reviewed the Draft SEIR and prepare a written response addressing each of the comments. A Final Supplemental Environmental Impact Report ("Final SEIR" or "FSEIR") was prepared for the Project, which assembles, in one document, all of the environmental information and analysis prepared for the project, including comments on the information and analysis contained in the Draft SEIR and responses by the County to those comments.

Pursuant to Section 15132 of the CEQA Guidelines, the Final SEIR consists of the following:

(a) The Draft SEIR, including all of its appendices.

(b) The previously certified FEIR for the 2013 Expansion Project.

(c) A list of persons, organizations, and public agencies commenting on the Draft SEIR.

(d) Copies of all letters received by the County during the Draft SEIR public review period and responses to significant environmental points concerning the Draft SEIR raised in the review and consultation process.

(e) Revisions to the Draft SEIR.

(f) A link to the FEIR for the 2013 Expansion Project.

(g) Any other information added or considered by the lead agency.

2.0 CEQA FINDING OF INDEPENDENT JUDGMENT (Guidelines Section 15001(a))

The County is the lead agency with respect to the 2018 Expansion Project pursuant to Section 15367 of the CEQA Guidelines. As noted above, Section 15091 of the CEQA Guidelines requires that the lead agency prepare written findings for identified significant impacts, accompanied by a brief explanation for the rationale for each finding. The Final SEIR for the Project identified potentially significant effects that could result from project implementation. However, the County finds that the inclusion of certain mitigation measures, as part of the project approval will reduce most, but not all, of those effects to less than significant levels. Those impacts that are not reduced to less than significant levels are overridden due to specific project benefits identified in Attachment C, the Statement of Overriding Considerations.

In accordance with CEQA and the CEQA Guidelines, the County adopts these findings as part of its approval of the project. Pursuant to Section 21082.1(c)(3) of the Public Resources Code, the County also finds that the Final SEIR reflects the County's independent judgment as the lead agency for the project.

3.0 ADMINISTRATIVE RECORD (Guidelines Section 15091(e))

The record, upon which all findings and determinations related to the approval of the project are based, includes the following:

(a) The certified 2013 Expansion FEIR and all documents referenced in or relied upon by the FEIR.

(b) The SEIR and all documents referenced in or relied upon by the SEIR.

(c) All prior and present information (including written evidence and testimony) provided by County staff to the Planning Commission and Board of Supervisors relating to the FEIR, the SEIR, the approvals, and the project.

(d) All prior and present information (including written evidence and testimony) presented to the Planning Commission and Board of Supervisors by the project sponsor and consultants.

(e) All final applications, letters, testimony, exhibits, reports and presentations presented by the project sponsor and consultants to the County in connection with FEIR, the SEIR and the Project.

(f) All final information (including written evidence and testimony) presented at any County public hearing or County workshop related to the project and the FEIR and the SEIR.

(g) For documentary and information purposes, all County-adopted land use plans and ordinances, including without limitation the general plan, specific plans and ordinances, together with environmental review documents, findings, mitigation monitoring programs and other documentation relevant to planned growth in the area.

(h) The MMRP for the Project.

(i) All other documents composing the record pursuant to Public Resources Code section 21167.6(e).

The custodian of the documents and other materials that constitute the record of the proceedings upon which the County's decisions are based is Zayante (Zoey) P. Merrill, Interim Community Development Director, or her designee. Such documents and other materials are located at the San Joaquin County Community Development Department, 1810 E. Hazelton Avenue, Stockton, California 95205.

4.0 FINDINGS OF FACT (Guidelines Sections 15091(a) and (b))

The following sections make detailed findings with respect to the potential effects of the Project and refer, where appropriate, to the mitigation measures set forth in the Final SEIR and the MMRP to avoid or substantially reduce potentially significant adverse impacts of the project. The SEIR and the administrative record concerning the project provide additional facts in support of the findings herein. The Final SEIR is hereby incorporated into these findings in its entirety. Furthermore, the mitigation measures set forth in the Final SEIR and the MMRP are incorporated by reference in these findings. The MMRP was developed in compliance with Section 15097 of the CEQA Guidelines and is provided under separate cover.

4.1 Potentially Significant but Mitigable Impacts

Pursuant to CEQA Guidelines Sections 15091(a)(1) and 15092(b), and to the extent reflected in the FSEIR and the MMRP, the County finds that changes or alterations have been required to, or incorporated into, the components of the project to mitigate or avoid potentially significant effects on the environment. Based on the analysis contained in the FSEIR, the following impacts have been determined to fall within the category of impacts that can be reduced to less than significant levels with implementation of the mitigation measures set forth below.

- Land Use, Plans and Policies (possible impacts resulting from any potential exceedance of FAA height limits on construction near airports, including any potential intrusion into airport imaginary surfaces as defined by the FAA; potential increase in bird hazards to aircraft due to proximity of the project to the Stockton Metropolitan airport; and potential interference by project night lights with airport landing lights).

- Noise (potential noise impacts from landfill on-site heavy equipment).

- Air Quality, Odors and Greenhouse Gases (potential impacts resulting from initial construction particulate matter and equipment exhaust emissions; potential impacts from an increase in operational emissions of criteria air pollutants from onsite emission sources and increased emissions associated with traffic-related trips; potential impacts from fugitive odors and dust; and project emissions of greenhouse gases could conflict with the implementation of the California Global Warming Solutions Act of 2006 (AB32)).

- Public Health and Safety (potential impacts from workers exposure to chemicals and dust that may exceed levels protective of human health and safety; potential impacts from hazardous waste that may be inadvertently contained in waste loads brought to the landfill; potential spills, collisions, upsets or other accidents at the landfill or during transport of waste to the landfill that may cause impacts to workers or the general public; potential impacts from the generation of additional landfill gas creating the potential for landfill gas hazards; potential impacts from solid waste containing pathogens that could be spread by vectors; potential impacts from the use of hazardous or regulated waste during construction; and wells located down gradient of the landfill could be impacted by the existing VOC contaminated ground water plume).

- Hydrology and Water Quality (potential impacts to surface water from storm water coming in contact with landfill refuse; uncontrolled erosion from soil stockpiles and landfill surfaces, or inadvertent spills of refuse or other substances onsite, could contaminate surface water; groundwater contamination could potentially occur if the leachate collection systems for the expansion area failed; groundwater contamination could potentially occur if the leachate collection systems for the expansion area was not properly managed; the re-routing of the South Branch of South Littlejohns Creek could result in flooding if the new alignment is not designed to accommodate peak flows; adding significant new landfill volume could potentially contribute to the known VOC-contaminated plume and other groundwater contamination; potential decreases in groundwater resources could occur due to loss of recharge surface area from the project; and the potential for increased sedimentation to occur during the construction phase of the relocation of the South Branch of South Littlejohns Creek).

- Soils and Geology (seismic shaking could impair or otherwise compromise both the existing and proposed (for the new expansion areas) Class II liner and associated leachate collection system integrity, causing slope instability, damage to drainage features, or differential settlement of the landfill over the life of the project, or following closure; the potential for slope instability caused by an earthquake could result in damage to existing and proposed landfill administrative facilities, scale house, groundwater treatment system, composting storage, and support facilities; and increased erosion and sedimentation could occur, particularly during the construction phases of the landfill, due to grading and borrow soil excavation and transport operations).

- Biological Resources (potential impacts to wetlands; potential loss of Chinook Salmon and steelhead; the potential "take" of Giant Garter Snake; and Western Pond Turtle; potential impacts to special status bird species such as the Swainson's Hawk, Golden Eagle, While Tailed Kite, Burrowing Owl, Loggerhead Shrike, and Northern Harrier and California Horned Lark; potential impacts to migratory bird species; potential loss of agricultural fields, non-native annual grasses, and rudural vegetation and fresh water emergent wetlands; and potential impacts to wildlife from the use of rodenticides in the capped area of the landfill).

- Public Services and Utilities (the extended length of operations due to the proposed landfill expansion could adversely affect the ability of the San Joaquin County Sheriff's Department and California Highway Patrol to provide police protection and could adversely affect the Manteca-Lathrop Fire District's ability to provide fire protection; and the proposed project could extend the time for leachate generation that, if disposed at the City of Stockton Regional Wastewater Control Facility, could adversely affect plant operation).

- Cultural Resources (potential impacts on buried archaeological and paleontological resources)

- Visual Quality (the proposed project could move ancillary facilities, which could generate additional sources of light; the proposed project could extend the life of the landfill and the associated potential of debris and litter along access roads and at the site

from transporting and handling of waste; and excavation, moving, and depositing soil for daily cover of the additional waste disposed under the proposed project could create visible dust and haze in the vicinity of the project).

4.1.1 Land Use and Agricultural Resources

Summary of Potential Impacts

An evaluation of potential impacts to land use and agricultural resources from the project is found in Section IV. A (Land Use and Agricultural Resources) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and as further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) possible impacts resulting from any potential exceedance of FAA height limits on construction near airports, including any potential intrusion into airport imaginary surfaces as defined by the FAA; (2) a potential increase in bird hazards to aircraft due to proximity of the project to the Stockton Metropolitan airport; and (3) potential interference by project night lights with airport landing lights.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential impacts to Land Use and Agricultural resources from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact A.3: The proposed project could exceed FAA height limits for structures near airports. (Revises 2013 EIR Impact A.3)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *Forward will continue its procedure of submitting a Notice of Proposed Construction or Alteration (FAA Form 7460-1) at least 45 days prior to operation of any equipment that could temporarily intrude into the imaginary surface, as required by the Federal Aviation Administration (FAA) for all proposed construction or alterations that could intrude into the airport imaginary surface*.

Facts in Support of Finding:

The proposed final grades of the 2018 Expansion Project would not (a) penetrate obstruction criteria for Stockton Metropolitan Airport (SCK), (b) penetrate Obstacle Clearance Surfaces (OCS) or Circle-to-Land Obstacle Clearance Surfaces (OCS), or have an adverse impact on arrival procedures

at SCK, (c) have an adverse impact on departure procedures at SCK, or (d) penetrate the Visual Flight Rule (VFR) Traffic Pattern for SCK. (Williams Aviation Consultants, 2017). Therefore, the final grades of the proposed expansion project would have a *less-than-significant* impact on safety due to conflict with FAR height limits or the airport imaginary space. However, when the two expansion areas have been filled to an elevation near their permitted heights, equipment operating on top of the landfill could temporarily intrude into the conical space. Forward would continue its procedure of submitting a Notice of Proposed Construction or Alteration (FAA Form 7460-1) at least 45 days prior to operation of any equipment that could temporarily intrude into the imaginary surface, as required by the Federal Aviation Administration (FAA) for all proposed construction or alterations that could intrude into the airport imaginary surface. The FAA would then issue a Notice to Airmen (NOTAM) notifying pilots of the temporary intrusion into the airspace. This would reduce the impact of operating equipment on the conical space to a less-than-significant level.

Potential Significant Impact A.4: The proposed project could increase bird hazards at the Stockton Metropolitan Airport (Revises 2013 EIR Impact A.4).

Findings

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project and imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following measures are proposed as part of the project:

- *Existing measures to discourage birds from the landfill will be continued. Surface area of ponds will be limited to the extent feasible.*
- *The project sponsor will continue to monitor bird populations. If follow-up surveys show an increase in bird populations, the project sponsor will increase mitigation measures such as covering the fill areas as soon as possible and using noise-makers and other measures as necessary to discourage birds from the site, until bird population levels return to the level found in pre-project surveys. Use of noise-makers would be limited to daylight hours.*
- *As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. (Basso, 2018a).*
- *As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not pose a bird hazard to aircraft, and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018. (Basso, 2018d, 2018e).*
- *The project sponsor shall comply with the requirements applicable to existing landfills contained in Federal Aviation Administration (FAA) Advisory Circulars 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports, and 150/5200-34A, Construction or*

Establishment of Landfills Near Public Airports. Requirements in Advisory Circular 150/5200-33B applicable to the proposed project include notification of the FAA and airport, and a demonstration that the landfill is designed and operated so it does not pose a bird hazard to aircraft. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. (Basso, 2018a). The effectiveness of the gull control program at the existing landfill in avoiding bird hazards to aircraft is discussed under Surrounding and Nearby Land Uses, above, and the demonstration that the site will not pose a bird hazard to aircraft was placed in the operating record by letter on July 6, 2018. (Basso, 2018b). Advisory Circular 150/5200-34A applies only to establishment of new landfills near airports, and does not apply to the proposed project.

- *In addition to the procedures proposed as part of the project identified above, the project sponsor will abide by any additional reasonable and feasible measures designated by the Stockton Metropolitan Airport or the FAA to mitigate bird population impacts that could be caused by the proposed project.*

A biologist from the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services visited the project site to evaluate aviation-related wildlife hazards and current management practices, including the bird control program discussed above. After the visit, USDA Wildlife Services made recommendations for wildlife management at the landfill. (Odell, 2011). In addition to compliance with FAA rules and regulations, the recommendations include:

- *Review of all new landscaping/development plans for wildlife hazards*
- *Water management to eliminate standing water from the landfill whenever possible*
- *Vegetation management to eliminate brushy areas along ditches and streams*
- *Operation of wildlife hazard management patrols*
- *Continuation of the current falconry-based bird control program at the landfill*
- *Coordination with the U.S. Fish and Wildlife Service to develop a permit to reduce hazards to aircraft from specific threatened and endangered species and species of special concern.*

The following Mitigation Measure shall be imposed as a condition of approval of the project:

<u>Mitigation Measure A.4 (Implement Annual Gull Control Program) (Revises 2013 EIR Mitigation A.1):</u> The project sponsor shall continue to implement an annual gull control program as described in Rolph A. Davis, Ph.D. LGL Limited environmental research associates, Demonstration of the Continued Effectiveness of the Bird Control Program at the Forward Landfill, Manteca, California – 2016-2017, August 7, 2017. The gull control program shall include monitoring of gulls feeding at or using the landfill, as described below.

- *Monitoring shall be conducted by an independent third-party firm or individual with experience in the field of bird hazards to aircraft safety.*
- *The third-party monitoring shall consist of a minimum of six site visits, each lasting four hours, every month from October through May. To the extent possible, the site visits shall be announced in advance. During each month:*
    - *two of the visits shall begin at dawn,*

- *two shall occur during mid-day,*
- *one shall occur late in the afternoon covering the period after the falconer has finished for the day, and*
- *one shall occur on Sunday when the landfill is closed to ensure that gulls are not accessing the site when staff are absent.*

- *Site visits in addition to the minimum of six monthly visits described above shall be made if necessary to verify the criteria for failure described below.*
- *The results of the monitoring shall be documented in an annual report.*
- *Landfill staff shall participate in monitoring so that action can be taken as soon as a potential problem is identified.*

The control program shall be considered to be failing and will require upgrading if any of the following situations occur:

- *Gulls land at the active disposal area, begin to feed, and are able to feed for 10 minutes or more, on two or more occasions during a week.*
- *Flocks of gulls begin loafing on other parts of the landfill and are not scared away by the control program within 30 minutes, on more than two occasions during a week.*
- *Gulls begin to circle over the landfill, including adjacent creek areas, and are not removed by the falcons. If this behavior continues over a period of one week, then it indicates that the birds are likely getting food at the landfill.*

The above triggers do not specify a minimum number of gulls because if one or two gulls are present, they will soon attract other gulls and numbers will build up. Therefore, it is essential to deter the first gulls.

In the event that the bird control measures proposed as part of the project, described above, in combination with the gull control program described in this mitigation measure, are found to be ineffective in reducing the numbers of flocking birds by the criteria described above, the project sponsor shall implement one or more of the following:

- *The falconry program shall be intensified to ensure that there are no gaps in coverage and that additional falcons are available for those days when it may be necessary to fly the falcons often.*
- *The operator shall introduce a more comprehensive pyrotechnic-based control program to supplement the falconry program. Many landfills successfully control gulls using only a pyrotechnic-based program. The pyrotechnics program shall provide coverage when the falcons were not on site during the week and on weekends. The pyrotechnics program shall also cover areas remote from the active area to remove loafing gulls.*
- *With the exception of removal of prey base for predatory birds and mammals, and actions involving special-status bird species, the operator shall implement the recommendations for vegetation, wildlife, and water management contained in Odell, Russel W., Senior Wildlife Biologist, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services California, Letter to John Funderburg,*

Principal Planner, San Joaquin County Community Development Department, August 29, 2011.

- *The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already submitted this form (Lewis, 2018). The project sponsor shall undertake regular, ongoing communication with Airport staff regarding the airports Wildlife Hazard Assessment and wildlife management program, to address changes in wildlife presence or behavior observed at the landfill.*

Facts in Support of Finding:

The existing landfill has not generated significant bird strike hazards for the Stockton Metropolitan Airport from gulls or other bird species, both prior to and following the implementation of the bird control program at the Landfill. The proposed project would continue to employ current bird control measures including properly compacting and covering wastes at the end of each day, and the use of falcons, bird flares, whistles, and bombs to scare away and deter birds. The bird control program has been shown to be effective at preventing gulls from feeding at, or otherwise using, the Forward Landfill. (Davis, 2017).

The proposed relocation of Littlejohns Creek would not result in a net increase in area of habitat for those bird species most associated with bird strike hazards for aircraft. Bird species such as gulls and geese that pose the greatest risk for aviation at the landfill are the focus of the existing bird control program. In addition to large flocking birds, raptors (birds of prey), which include special-status bird species, may also be present in the project vicinity. However, the relocation of the South Fork of South Littlejohns Creek, and continuation of current levels of prey at the landfill, would not substantially enhance the habitat for raptors, which, in any case, do not pose a substantial threat to aircraft safety at the Stockton Metropolitan Airport.

Potential Significant Impact A.5: Night lighting at the proposed project could interfere with airport landing lights. (Same As 2013 EIR Impact A.5).

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project and imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following measures are proposed as part of the project:

- *Aircraft warning lights will be installed at the landfill as and when required by the FAA.*
- *As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft*

must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. (Basso, 2018a, 2018b).

- *As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not cause a bird hazard to aircraft, and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018. (Basso, 2018d, Basso, 2018e).*
- *The use of highly reflective surface materials in constructing structures on the site will be prohibited.*

In addition, the following Mitigation Measures (from the 2002 Final EIR for the existing landfill), which is a condition of the permits for the existing landfill, shall be imposed as a condition of approval of the project:

- Mitigation Measure A.5. Shield Landfill Lighting. (Same As 2013 EIR Mitigation A.5): *The project sponsor shall include downward shielding of new landfill lighting, and shall abide by any reasonable and feasible measures or regulations the Federal Aviation Administration (FAA) and Stockton Metropolitan Airport have to mitigate lighting impacts that could be cause by the proposed project, including reducing or eliminating lighting during foggy conditions and concurrently suspending operations that depend on the lighting.*
- *The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already filed this form for the proposed project (Lewis, pers. com, August 8, 2018). This form shall be re-filed if there is any change to proposed landfill grade.*
- *Mitigation Measure K.4 (2013 EIR) also applies to night lighting impacts.*

Facts in Support of Finding:

Pilots landing at the Stockton Metropolitan Airport during darkness use airport runway lights to locate the runway. New sources of light near the runway lighting may be difficult to distinguish from airport lighting. Downward shielding of lighting at the landfill would reduce the visibility of landfill lighting to pilots. However, even with downward shielding, moisture in the air during foggy conditions can generate a dispersed glow that may create confusion for incoming pilots. Use Permit CUP-00-0007, approved in April 2003 for Forward to combine the former Austin Road Sanitary Landfill and the Original Forward Landfill into a single Forward Landfill included a mitigation measure that stipulates that lighting for nighttime operations at the working face and other landfill facilities shall consist of sodium lamps with sharp cutoff angles and downward shielding, and to the extent feasible, shall be oriented in a direction that is not visible from off-site locations. Forward Landfill has complied with this mitigation measure since 2003, and has not received any non-compliance reports for lighting hazards to aircraft navigation. The current landfill lighting does not interfere with aircraft navigation.

4.1.2 Noise

Summary of Potential Impacts

An evaluation of potential impacts to Noise from the project is found in Section IV. C (Noise) of the Final SEIR.

The Final SEIR describes as potentially significant the following impact which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) possible impacts resulting from truck traffic noise.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential noise impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact C.3. On-Site Landfill Equipment Noise Impacts (Revises 2013 EIR Impact C.3.)
Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measure imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following Mitigation Measure shall be imposed as a condition of approval of the project:

- <u>Mitigation Measure C.3. (Same as 2013 EIR Mitigation Measure C.3.)</u>
- *The Landfill shall implement one of the following two options to mitigate this potentially significant impact:*
    - *Heavy equipment operations shall not be conducted within 1,500 feet of any occupied residence after 10 p.m. and before 7 a.m.; or*
    - *Equipment operations within 1,500 feet of any residence after 10 p.m. or before 7 a.m. shall be fully shielded from the direct line of sight to the residence by an earthen berm whose crown elevation exceeds the elevation of the top of the exhaust stack.*

Facts in Support of Finding:

The revised project includes changes to the landfill footprint in the northeast and southeast of the site (see Chapter II, Project Description). These two areas would be the location of noise from new landfill equipment operations. A residence along Austin Road is approximately 1,300 feet south-southeast of the northeast expansion area. The County noise ordinance restricts the noise level at any noise-sensitive receiving property to an Lmax of 65 dBA between 10:00 p.m. and 7:00 a.m. and

70 dBA between 7:00 a.m. and 10:00 p.m. The operation of heavy equipment at the northeast expansion area could result in Lmax noise levels up to 67 dBA at the nearest residence, which would result in a potentially significant impact. For this reason, the mitigation measure options will avoid the operation of heavy landfill equipment within 1,500 feet of any residence during nighttime hours unless is it fully shielded from the direct line of sight from the residence, which would attenuate the noise impact at the residence.

4.1.3 Air Quality /Odors/Climate Change

Summary of Potential Impacts

An evaluation of potential impacts to Air Quality, Odors and Climate Change from the project is found in Section IV. D (Air Quality/Odors/Climate Change) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) potential impacts resulting from initial construction particulate matter and equipment exhaust emissions; (2) potential impacts from an increase in operational emissions of criteria air pollutants from onsite emission sources and increased emissions associated with traffic-related trips; (3) potential impacts from fugitive odors and dust; and (4) project emissions of greenhouse gases could conflict with the implementation of the California Global Warming Solutions Act of 2006 (AB32)).

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Air Quality, Odors and Climate Change impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact D.1. Initial construction activities for the expansion area would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM_{10}) and equipment exhaust emissions (Revises 2013 EIR Impact D.1.).

Finding:
Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following Mitigation Measures shall be implemented as a condition of approval of the project:

<u>Mitigation Measure D.1. (Same as 2013 FEIR Mitigation Measure D.1.)</u>:

- *The applicant shall comply with Regulation VIII of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and implement the following control measures during construction:*

- *The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes five acres or more of disturbed surface area.*

Specific relevant control measures for construction, excavation, extraction, and other earthmoving activities required by the SJVAPCD include*:*

- *All disturbed areas, including storage piles not actively utilized for construction purposes, shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover or vegetative ground cover in order to comply with Regulation VIII's 20 percent opacity limitation.*
- *All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.*
- *All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.*
- *When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.*
- *All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. However, the use of blower devices is expressly forbidden, and the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.*
- *Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized utilizing sufficient water or chemical stabilizer/suppressant.*
- *Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.*

Enhanced and additional control measures for construction emissions of PM_{10} shall be implemented where feasible. These measures include:

- *Limit traffic speeds on unpaved roads to 15 mph by signage and electronic speed monitoring devices.*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.*
- *Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.*
- *Install wind breaks at windward side(s) of construction areas.*
- *Suspend excavation and grading activity when winds exceed 20 mph.*
- *Limit area subject to excavation, grading, and other construction activity at any one time.*

The applicant shall implement feasible control measures during construction to mitigate NO_x and VOC emissions from construction equipment, which may include:

- *Require construction equipment used at the site to be equipped with catalysts/particulate traps, or Tier 4 diesel engines to reduce particulate emissions. Currently, CARB has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, contractors must show that the diesel-fueled construction equipment used is equipped with particulate filters, catalysts, or Tier 4 diesel engines, or prove why it is infeasible.*
- *Use alternative fueled construction equipment, where feasible.*
- *Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).*
- *Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.*
- *Require that all diesel engines be shut off when not in use on the premises for more than five minutes to reduce the emissions from idling.*

Facts in Support of Finding:

The SJVAPCD is responsible for bringing the area in which the project is located into compliance and/or maintaining air quality within federal and State air quality standards. This includes the responsibility to monitor ambient air pollutant levels and to develop and implement attainment strategies to ensure that future emissions are within federal and State standards. Consistent with CEQA Guidelines Appendix G, the SJVAPCD has established thresholds of significance that may be relied upon in assessing construction impacts. SJVAPCD is the regional air quality control agency with jurisdiction over the area surrounding the proposed project. The SJVAPCD's thresholds include significance criteria for evaluating construction emissions. Construction emissions are evaluated separately from other project emissions and compared to the SJVAPCD significance criteria.

According to the Final SEIR, construction of the project could have a significant air quality impact due to the generation of fine particulate matter from construction activities and equipment exhaust. The SJVAPCD adopted Regulation VIII to reduce ambient concentrations of fine particulate matter during construction by requiring actions to prevent, reduce or mitigate such emissions. The Regulation has been developed pursuant to United States Environmental Protection Agency guidance for Serious PM10 Nonattainment Areas. The SJVAPCD has determined that compliance with Regulation VIII will reduce potential impacts controlled by this regulation to a level of less than significant. Therefore, compliance with SJVAPCD Regulation VIII, the rules adopted thereunder, and the above mitigation measures will reduce this potential impact to a level of less than significant.

Potential Significant Impact D.2. The project would result in an increase in operational emissions of criteria air pollutants from onsite emission sources and increase emissions associated with traffic-related trips (Revises 2013 FEIR Impact D.2. and adds CO discussion to replace 2013 FEIR Impact D.3).

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measure imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following Mitigation Measures shall be imposed as a condition of approval of the project:

Mitigation Measure D.2a. (Revises 2013 FEIR Mitigation Measure D.2a.):

- *The applicant shall comply with SJVAPCD Rule 2201 regulations to offset stationary source emissions of VOCs, CO, NO_x, SO_x, PM_{10} and $PM_{2.5}$ in excess of the applicable SJVAPCD emissions offset threshold levels. The applicant shall also comply with Regulation VIII and implement Mitigation Measure D.1. for operational activities such as earthmoving.*

Mitigation Measure D.2b. (Revises 2013 FEIR Mitigation Measure D.2b.):

On-site Particulate Emission AAQS Mitigation

The project shall implement one or a combination of the following options to reduce air quality emissions below the SJVAPCD thresholds prior to the start of the proposed Project (i.e. when 8.12 mcy of landfill disposal capacity remains).

*(a) Limit future truck trips when 8.12 mcy of landfill disposal capacity remain*s *to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" PM_{10} or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.*

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

Regional Criteria Pollutants Emission Mitigation

The project shall implement one or a combination of the following options to reduce air quality emissions below the SJVAPCD thresholds prior to the start of the proposed Project (i.e. when 8.12 mcy of landfill disposal capacity remains).

*(a) Limit future truck trips when 8.12 mcy of landfill disposal capacity remain*s *to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" NOx, PM_{10}, or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.*

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for NOx, PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

Facts in Support of Finding:

The Air Quality Impact Analysis for the project (AQIA) evaluated how the project would increase criteria pollutant emissions from landfill gas (LFG)-derived sources under two scenarios: additional LFG is controlled either by (a) additional flare capacity (flare scenario) or (b) LFG engines at existing and future LFG to energy facilities (LFG engine scenario). Two baseline scenarios were evaluated: Current Actual emissions, determined using 2016 and 2017 operational data; and Current Permitted emissions, based on emissions of landfill sources at maximum permitted levels.

Table IV.D-4 presents net project emissions derived from the AQIA. Project unmitigated impacts for VOC, NO_x, PM_{10}, $PM_{2.5}$ and CO would be considered potentially significant under almost all of the Project scenarios presented.

SJVAPCD Rule 2201 requires new and modified stationary sources of emissions such as the project to mitigate emissions using best available control technology (BACT) and to offset emissions when above the SJVAPCD's emissions offset threshold levels. All VOCs, NOx, CO, SOx, PM_{10} and $PM_{2.5}$ emissions from stationary sources in excess of the applicable SJVAPCD emissions offset threshold levels shall be offset by acquisition of emission offsets, as required by SJVAPCD Rule 2201 regulations. Thus, the stationary source emissions would be mitigated with emission offsets and would be less than significant.

Emission offsets are emission reductions recognized by the SJVAPCD in the form of Emission Reduction Credits that are issued in accordance with the provisions of SJVAPCD Rule 2301 (Emission Reduction Credit Banking), or other Actual Emissions Reductions that may be used to mitigate an emission increase as part of the same Stationary Source Project in accordance with the provisions of SJVAPCD Rule 2201. Emission offsetting works by using emission reductions from existing sources to offset emission increases from new or expanding sources. Emission offsets are considered adequate mitigation because they are enforceable by permit conditions, legally binding agreements, or other measures, and they are capable of being monitored and enforced.

To determine whether project emissions would exceed the federal or California ambient air quality standards (NAAQS and CAAQS), emissions were modeled, added to background concentrations and compared to the standards. Project (future potential) – Current Actual emissions of CO, NO_2 and SO_2 would not exceed the NAAQS or CAAQS when added to background concentrations. Project (future potential) – Current Actual emissions of PM_{10} and $PM_{2.5}$ were found to contribute to background concentrations that exceed the NAAQS and CAAQS (the SJVAPCD is designated nonattainment for PM_{10} and $PM_{2.5}$). Additional information regarding the assumptions and methodologies used in the ambient air quality analysis is available in the *AQIA* by SCS Engineers (See Appendix D).

With implementation of Mitigation Measures D.2a. and D.2b., stationary sources would be mitigated (by D.2a.) and fugitive emissions and mobile emissions would be mitigated (by D.2b.). The future emission offsets to be purchased as required by Mitigation Measures D.2a. and D.2b. would reduce emissions in the SJVAPCD jurisdiction and the project's contribution to existing violations of the NAAQS and CAAQS would not be considered substantial after mitigation. Thus, with mitigation, this impact would be less than significant.

Potential Significant Impact D.3. Odor and Visible Dust Impacts (Same as 2013 FEIR Impact D.4.)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measure imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following Mitigation Measures shall be implemented as a condition of approval of the project:

Mitigation Measure D.3. (Same as 2013 EIR Mitigation Measure D.3.*):*

- *To reduce the potential for any off-site odor impacts, the Odor Control Management Plan for Forward Landfill shall be modified to include daily management odor inspections when cannery wastes are being processed.*

Facts in Support of Finding:
Odoriferous compounds can escape from the landfill surface through cracks in the surface cover. Other possible sources of landfill odors are the actual wastes.

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the SJVAPCD does not currently impose any rules or regulations that place quantifiable limitations on emissions of odorous substances, other than its Nuisance Rule 4102. Any actions related to odors are based on citizen complaints to local governments and the District.

The SJVAPCD identifies a sanitary landfill as a type of facility that is a potential odor source. Because there are one or more sensitive receptors within the screening trigger distance of one mile from the landfill property, potential odor impacts from the project have been considered. The District has established the following significance threshold for odor problems:

• More than one confirmed complaint per year averaged over a three-year period, or
• Three unconfirmed complaints per year averaged over a three-year period.

A Public Records Request was submitted to the SJVAPCD on June 25, 2018, requesting information on odor and dust complaints for Forward Landfill since 2015. On June 26, 2018, the SJVAPCD indicated that there are no complaint records on file for Forward Landfill since 2015 (over the last three years).

As part of the 2013 FEIR, a survey was conducted during three days to make qualitative observations related to odor and visible dust emissions leaving the landfill. The odor and dust surveys identified minimal off-site impacts from odors or visible dust. Odors that were moderate to strong near the working face were reduced to mild, very faint, or non-detectable at locations surveyed on Austin Road. On the days surveyed [assumed to be typical operations] the water trucks were seen controlling onsite dust generation by periodically watering the on-site landfill roads and areas used by trucks near the working face.

Track-out of dirt onto Austin Road near the entrances to the Forward Recovery Center and Forward Landfill are the source of re-entrained road dust on Austin Road observed during the surveys. Mitigation Measure D.1. would reduce the level of re-entrained dust to a less-than-significant level.

Mitigation Measure D.1 states:

- *The applicant shall comply with Regulation VIII of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and implement the following control measures during construction:*
- *The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes five acres or more of disturbed surface area.*

Potential Significant Impact D.4. Project operations would generate emissions of GHG that could conflict with the implementation of the California Global Warming Solutions Act of 2006 (AB32) (Revises 2013 FEIR Impact D.5.).
Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measure imposed as a condition of approval as recommended in the Final SEIR will mitigate this impact to less than significant:

The following Mitigation Measures shall be implemented as a condition of approval of the project:

<u>Mitigation Measure D.4. (Same as 2013 EIR Mitigation Measure D.5.):</u>

- *Both the Flare and LFG engine options would require feasible mitigation measures to further reduce GHG emissions. The landfill operators shall annually report GHG emissions from the project (actual operations) to the County and SJVAPCD. If the increase in operational emissions exceeds 25,000 metric tons of CO_2e per year by 2020, then the landfill shall purchase verifiable GHG credits to offset the remaining project*

emissions above 25,000 metric tons of CO_2e per year. Additional GHG credits shall be purchased every five years if the annual reports indicate that the credits have not offset excess GHG emissions (those above 25,000 metric tons of CO_2e per year) in the prior five years.

Facts in Support of Finding:

The project will be required to monitor project GHG emissions and to report these emissions to the SJVAPCD. The SJVAPCD adopted a Climate Change Action Plan (CCAP) in 2008. The goals of the CCAP are to establish District processes for assessing the significance of project specific GHG impacts for projects permitted by the District. State law (Executive Order S-3-05, Executive Order B-30-15, and Senate Bill 32) recognizes that GHG emissions can be mitigated or offset through the purchase of carbon credit offsets. A carbon credit or carbon offset is a credit for GHG emissions reduced or removed from the atmosphere from an emissions reduction project, which can be used, by governments, industry or private individuals to compensate for the emissions they are generating. California's long-term GHG reductions goals embodied in existing laws/regulations will require that carbon credits will be available for purchase for projects in 2020 and beyond. The purchase of the verifiable GHG credits would therefore reduce the impact to a level that is less than significant. The 25,000 metric ton threshold will place the project below 94% of stationary emissions sources in the State and should bring the facility into compliance with the State's greenhouse gas reduction goals The project will be required to purchase carbon credits as set forth in the mitigation measure. The project will also be required to comply with the recently adopted methane rule for municipal solid waste landfills, at 14 CCR 95460 to 95476.

4.1.4 Public Health and Safety

Summary of Potential Impacts

An evaluation of potential impacts to Public Health and Safety from the project is found in Section IV. E (Public Health and Safety) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) potential impacts from workers exposure to chemicals and dust that may exceed levels protective of human health and safety; (2) potential impacts from hazardous waste that may be inadvertently contained in waste loads brought to the landfill; (3) potential spills, collisions, upsets or other accidents at the landfill or during transport of waste to the landfill that may cause impacts to workers or the general public; (4) potential impacts from the generation of additional landfill gas creating the potential for landfill gas hazards; (5) potential impacts from solid waste containing pathogens that could be spread by vectors; potential impacts from the use of hazardous or regulated waste during construction; (6) and wells located down gradient of the landfill could be impacted by the existing VOC contaminated ground water plume.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Public Health and Safety impacts from the project as identified in the Final SEIR. The

County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact E.1: Worker exposure to chemical contaminants and particulates during landfill operations would exceed levels protective of human health or safety. (Same as 2013 EIR Impact E.1)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *Use of a total of 17 pieces of equipment (at any given time) over the life of the project to minimize particulate discharge, will remain unchanged.*
- *Waste Management Unit operations at the landfill would be limited to a single working face for disposal operations at any given time.*
- *All employees would be given appropriate training regarding the potential for exposure to hazardous materials. This training will include a 24-hour hazardous waste operations course and an annual 8-hour refresher course for personnel involved in the "load checking" program where the incoming loads are screened for hazardous materials.*
- *The landfill would not accept any designated waste that may potentially contain hazardous levels of regulated substances (as defined in water Code Section 13173) unless authorized by the RWQCB.*
- *Dust control procedures specified in the Site Operations Plan (per the JTD) would use the application of fine water spray at a minimum of twice daily on the active soil-covered work areas, soil excavation areas, and soil stockpile areas where fugitive dust may exist.*
- *Existing fire protection facilities would be maintained to the satisfaction of the Lathrop – Manteca Fire Protection District.*
- *Dust exposure of site workers would be monitored periodically, at the discretion of the landfill manager, to evaluate if any additional respiratory protection or dust suppression (watering) mitigation is needed.*
- *Additional engineering controls would be implemented by the site operator, if needed based on the evaluation of the site health and safety or operations manager, to control dust emissions. Such controls might include wind screens near unloading areas or the use of dust suppressants.*
- *If the above controls cannot reduce employee dust exposure below acceptable levels as determined by Forward Landfill (considering factors including irritation and annoyance to employees), site personnel at risk would be supplied with gloves, coveralls, eye protection and respirators, with associated training in their use.*
- *Wastes must not leave the landfill on workers' clothing. Workers who have had direct contact with waste, or who have performed operations that may involve direct contact with*

wastes (such as equipment maintenance or asbestos handling), would wear disposable clothing or change clothing before leaving the site. The potentially contaminated clothing will be cleaned or disposed as appropriate.

- *To avoid cross-contamination from contaminated to non-contaminated sites, the applicant would install a pressurized water distribution system to service a decontamination facility for personnel and equipment. The decontamination facility may be fixed or mobile. Wastewater generated from the decontamination of personnel and equipment is containerized and analyzed in accordance with applicable requirements. If analytical results support compatibility with the Class II impoundments, a request will be submitted to the Regional Water Quality Control Board to dispose of decontamination water in the Class II surface impoundments. Upon approval in writing from the Regional Water Quality Control Board, containerized decontamination water will be discharged in the Class II surface impoundments.*
- *For asbestos, a strict Asbestos-Containing Materials (ACM) handling program would be developed, and would include the following:*
  a. *Bagged ACM would be dumped only onto the working face of the asbestos disposal area and not onto the flat compacted landfill surface. Bulldozers would then push soil cover onto the working face to cover the ACM bags and will not contact the bags.*
  b. *For Forward site employees engaged in handling asbestos materials, Forward will implement one of the following:*
     1. *A three-day approved asbestos workers training program*
     2. *Any asbestos training program specific to landfill employees that has been developed, described, or required by regulation by either the CalRecycle or Cal-OSHA*
     3. *Any other asbestos training program approved by Cal-OSHA*
  c. *Provision of water at the working face to keep ACM damp until covered.*
- *Continuation of the annual physical evaluations of all onsite Forward employees for asbestos exposure.*
- *Workers would not be allowed to eat near the active landfill.*

Facts in Support of Finding:

The project would increase the amount of potentially contaminated waste products because of the proposed expansion of the Class II landfill. These changes could affect the health and safety of workers at the landfill by potentially exposing them to a variety of contaminants in air, soil or water that are associated with the materials brought into the landfill. Fugitive dust with airborne contaminants could be inhaled, dermal contact and ingestion of contaminated soil and/or water could occur.

The Final SEIR concludes that the measures proposed as part of the project will reduce worker exposure to contaminated waste products and fugitive dust to a level less than significant, by limiting the receipt of potentially hazardous waste at the landfill, training employees to avoid contact with hazardous chemicals and to handle asbestos, providing employees with protective

equipment, utilizing dust suppression methods, and following the site Dust Management Plan, among the other measures cited above. Therefore this potential impact will be reduced to less than significant.

Potential Significant Impact E.2: Hazardous waste might inadvertently be contained in the solid waste that is brought to the landfill for disposal. (Same as 2013 EIR Impact E.2)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- The Forward Landfill "load-checking program," which is designed to mitigate against hazardous waste being placed in the landfill, will continue to be implemented for the expanded landfill.
- Landfill operators will be trained to recognize and properly segregate and handle hazardous waste. This will include a 24-hour hazardous waste materials management training program that complies with 29 CFR, Section 1910.

Facts in Support of Finding:

Implementation of these procedures would reduce the impact to a less-than-significant level because they would reduce the likelihood of disposal of hazardous materials into the landfill to minimal levels and workers will be trained to properly and safely handle any hazardous waste they could encounter.

Potential Significant Impact E.3: Spills, collisions, upsets, or other accidents at the landfill or during waste transport could cause injury to site workers, the general public, or the environment. (Same as 2013 EIR Impact E.3.)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project and the Mitigation Measure recommended in the Final SEIR will mitigate this impact to less than significant:

The following measures are proposed as part of the project:

- *The Standard Safe Work Practices listed in the Forward, Inc. Site Health and Safety Program and Contingency Plan will be implemented by the operator.*
- *The landfill operator will comply with the provisions of CCR Title 27, Section 20590, which requires that O&M personnel wear and use approved safety equipment for personal heath and safety.*
- *Landfill access will continue to be controlled to limit unauthorized entry by persons or vehicles.*

- *The landfill operator will comply with all provisions of CCR, Title 27, Division 2, Chapter 3, Subchapter 4, Articles 1-3 that apply to landfill health and safety.*

These procedures also would be included in the Joint Technical Document being updated by the applicant, which is enforceable as part of the facility's required compliance under its Solid Waste Facilities Permit.

Further, the off-site impact is potentially significant therefore the following additional mitigation measure is suggested:

Mitigation Measure E.3: (Same as the 2013 EIR Mitigation Measure E.3.)

- *The San Joaquin County Public Works Department shall approve any new waste transport haul routes to the landfill from major arterials, SR 4, or Highway 99*

Facts in Support of Finding:

Implementation of the proposed procedures and mitigation measure would reduce the impact to a less-than-significant level because workers will be trained and required to follow site safety rules and Plans, as well as legally required O&M safety proecdures, and will be outfitted with reflective vests and other protective safety equipment. The San Joaquin County Office of Emergency Service reviewed and approved the Forward Landfill Site Emergency Action Plan, Fire Prevention Plan, Health and Safety Plan and Hazardous Material Management Plans (Plans). With respect to haul routes, the County can direct haul trucks to avoid hazardous routes.

Potential Significant Impact Impact E.4: Additional landfill gas would be generated, thus increasing the potential for landfill gas hazards. (Same as 2013 EIR Impact E.4.)
Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following procedures proposed as part of the project and the mitigation measure described below will be imposed as a condition of the project approval and will mitigate this impact to less than significant:

The following measures re proposed as part of the project:

- *Where required by State and Federal regulations, the landfill gas monitoring, gas control and collection system will be installed, extending to the new areas of the expanding landfill and operating in conformance with applicable regulations.*
- *The existing gas extraction system, or an equivalent system, will continue to operate.*
- *Regular gas monitoring will be conducted to prevent landfill gas accumulation in onsite buildings or beneath temporary buildings. The landfill operator will install an automatic combustible gas detection and alarm system for structures at the site.*
- *The landfill operator will not construct or otherwise locate any structure in an area of known landfill gas build-up.*
- *All site personnel who work in permanent structures will be trained to use and respond to the landfill gas monitoring and alarm system.*

This impact is still considered potentially significant; therefore the following additional mitigation measure is identified:

Mitigation Measure E.4: (Same as the 2013 EIR Mitigation Measure E.4.)

- *Landfill gas monitoring shall include the volatile organic compounds in order to determine the amount of contaminant recovery, and control potential exposure to onsite personnel.*

Facts in Support of Finding:

The production of landfill gases within a landfill is of concern because landfill gas typically consists of 50 percent methane gas, which is flammable when diluted in air to concentrations of 5 to 15 percent. Landfill gas is also of concern because of the hazardous air pollutants carried within the gas. Uncontrolled landfill gas emissions could cause methane gas buildup that could be ignited by machinery or onsite workers, however, the site includes a landfill gas collection system that reduces the chance of a dangerous on-site landfill gas build-up. The gas system collects landfill gas in the waste mass and conveys it to a flare and/or a gas-to-energy plant on site where the landfill gas is combusted and safely destroyed. Further augmentation of the gas collection system is planned as part of the proposed project and required for continued compliance with air quality regulations.

Further, the Forward Landfill has standard operating procedures in place to address landfill subsurface oxidization events (SSO). A subsurface oxidization (SSO) event can be caused by a variety of factors, including spontaneous combustion or by placing too much vacuum on a landfill gas collection system. In spontaneous combustion, waste material buried in a landfill is heated by chemical oxidation and biological decomposition. The resulting heat can cause the material to reach the point of ignition, causing rapid oxidization. SSOs can be prevented by the proper operation of the landfill gas collection system.

The Forward landfill has made significant improvements to its collection system that were approved by representatives of the SJVAPCD, Cal Recycle and the San Joaquin County Health Department -- Local Enforcement Agency and has not had any SSOs for over ten years.

Implementation of the proposed procedures and this mitigation measure would reduce the impact to a less-than-significant level because it allows the SJVAPCD, the County and applicant to control potential exposure of personnel to hazardous gases.

Potential Significant Impact E.5: Solid waste pathogens could be spread by vectors. (Same as 2013 EIR Impact E.5.)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *The landfill operator will follow legally required daily or alternative cover practices.*
- *The landfill will continue to ban intact tires (which collect water and serve as a breeding ground for vectors) and large dead animals from disposal at the landfill.*

- *Existing measures to discourage gulls from the landfill will be continued.*
- *Appropriate landfill personnel will periodically monitor the landfill for the presence of vectors, and landfill inspections will be documented in the landfill operations administrative file.*

Facts in Support of Finding:

Refuse in landfills attracts vectors such as rats, moles, gulls, etc. that can carry infectious pathogens, disease and parasites. More vectors over time would likely be attracted to the landfill due to its expansion. This could increase the likelihood of human exposure to the pathogens carried by the vectors. The above mitigation measures would reduce the potential for vectors that can carry pathogens from waste and into contact with workers and the public. Daily cover is placed and compacted on the disposal area at the end of each operating day that acts to prevent vectors coming in contact by waste when the landfill is not operating. Workers will monitor the site during operating hours to detect the presence of vectors and take action to eliminate or reduce their presence.

Potential Significant Impact E.6: The project would involve the use of additional regulated or hazardous materials during the proposed landfill expansion construction and operation. (Same as 2013 EIR Impact E.6.)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures will be imposed as a condition of the project approval and will mitigate this impact to less than significant:

<u>Mitigation Measure E.6: (Same as the 2013 EIR Mitigation Measure E.6.)</u>

- *All applicable regulatory guidance originating after the Forward Landfill 2002 EIR shall be implemented; all hazardous materials shall be handled in accordance with local, State, and federal regulations. This includes required reporting various hazardous materials-related data as mandated by the California Health and Safety Code through the web-based California Environmental Reporting System (CERS).*
- *The site HMMP, SWPPP, Operations Manual, and Wet Weather Plan shall serve to provide guidance in the use and handling of hazardous materials during the operations of the facility*

Facts in Support of Finding:

Myriad laws and regulations at the federal, State, and local levels provide for the safe management of hazardous materials. The U.S. Environmental Protection Agency (EPA) is the lead agency responsible for enforcing federal regulations that affect public health and the environment. The EPA designates much of its regulatory authority to the individual states. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal-EPA). Cal-EPA serves as the umbrella agency for six boards/departments: the California Air Resources Board (CARB), the Department of Pesticide Regulation (DPR), the Department of Toxic Substances Control (DTSC), the Department of

Resources Recycling and Recovery (CalRecycle), the Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resource Control Board (SWRCB) and associated Regional Water Quality Control Boards (RWQCB). The DTSC is generally charged with oversight of hazardous materials and waste. The Regional Water Quality Control Board (Central Valley Region) is the lead regulatory agencies for the protection of the waters of California potentially endangered by pollution. In turn, local jurisdictions such as the San Joaquin County Certified Unified Programs Agency (CUPA) may take the lead agency role as a Local Oversight Program entity, implementing State as well as local policies. At the project site, the lead agencies for hazardous materials and any associated potential contamination to the environment are the DTSC and RWQCB. These state agencies have regulatory oversight over the Forward landfill and its construction and operations. The primary purpose of this regulatory environment is to protect human health and safety by preventing unsafe contact with regulated and/or hazardous materials. The landfill conducts its operations in accordance with a variety of operations plans such as the site Hazardous Materials Management Plan (DTSC), Storm Water Pollution Prevention Plan (Regional Water Board), Operations Manual (LEA), and Wet Weather Plan (LEA)—all of which plans are reviewed, approved and enforced by the agencies identified in parentheses. Therefore, the requirement that the landfill comply with these state and local agency approved operations plans will reduce the potential impact from the use or handling of regulated or hazardous materials to less than significant.

Potential Significant Impact E.7: Private groundwater production wells located downgradient of the landfill may be affected by the VOC-contaminated groundwater plume. (Same as 2013 EIR Impact E.7.)

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures will be imposed as a condition of the project approval and will mitigate this impact to less than significant:

The description of this impact is presented in the Hydrology and Water Quality section under Impact F6 of the 2013 EIR. The potential impacts from the potential ingestion of groundwater from private offsite wells contaminated by the landfill-generated leachate plume would be significant if not mitigated. As described in Impact F.6, F. Hydrology and Water Quality, Forward would implement mitigation measures that would reduce the impact to a less-than-significant level.

Facts in Support of Finding:

See discussion of Impact F.6 below.

4.1.5 Vegetation and Wildlife

Summary of Potential Impacts

An evaluation of potential impacts to Vegetation and Wildlife from the project is found in Section IV. F (Vegetation and Wildlife) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) potential impacts to wetlands; (2) potential loss of Chinook Salmon and steelhead; (3) the potential "take" of Giant Garter Snake; and Western Pond Turtle; (4) potential impacts to special status bird species such as the Swainson's Hawk, Golden Eagle, While Tailed Kite, Burrowing Owl, Loggerhead Shrike, and Northern Harrier and California Horned Lark; (5) potential impacts to migratory bird species; loss of agricultural fields, non-native annual grasses, and rudural vegetation and fresh water emergent wetlands; and (6) potential impacts to wildlife from the use of rodenticides in the capped area of the landfill.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Public Health and Safety impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact F.1. Loss of Wetland Habitat.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

- *Prior to site grading, the project sponsor shall obtain re-verification of the jurisdictional delineation conducted for the project; this will ascertain the extent of jurisdictional waters and wetlands on the site, including the creek and potentially onsite storm control features (detention basins, dry ditches). The re-verified jurisdictional delineation will serve to confirm the acreage of jurisdictional area to be impacted and for which mitigation will be provided. Prior to site grading, the project sponsor shall obtain permits under Sections 401 and 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code for all impacts to jurisdictional resources; all permit conditions shall be implemented. At a minimum, an equivalent acreage of jurisdictional area to be impacted shall be established within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek (1:1 in-kind replacement of jurisdictional habitats impacted by the creek relocation), and if required by permit conditions, additional compensatory mitigation will be purchased from an USACE, RWQCB and/or CDFW-approved wetland mitigation bank. These mitigation components are discussed further below.*

  <u>Onsite Replacement of Jurisdictional Habitat</u>

- *A Creek Channel Mitigation and Monitoring Plan shall be prepared and submitted for agency review to ensure a "no net loss" of wildlife value or acreage of creek habitat. At a minimum, the Plan shall include the creation of the equivalent (in-kind) acreage of jurisdictional habitat within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek. The Concept Design Report (Questa 2017) indicates that approximately 1.87 acres of creek habitat would be created in the longer, relocated creek channel, so an*

increase in jurisdictional habitat (1.87 acres vs. 1.25 acres) is anticipated. The Project Sponsor shall ensure that the mitigation area, along with an appropriate upland buffer, are preserved in perpetuity via recordation of a deed restriction or similar easement.

The Creek Channel Mitigation and Monitoring Plan shall include the following details*:*

- *The location(s) of mitigation areas, including the types and extent of each habitat type to be created.*
- *Mitigation for loss of existing jurisdictional habitat shall at a minimum include the creation of equivalent acreage of jurisdictional habitat present within the channel (as determined by the re-verified jurisdictional delineation). Mitigation habitats shall replace the existing functions and services provided by the impacted channel.*
- *All graded areas within the habitat restoration area shall be seeded with appropriate mixes of California native grass and forb species, developed by a qualified restoration ecologist.*
- *The stated goal of the mitigation effort shall be to establish self-sustaining creek channel habitat that shall not require long-term irrigation or maintenance.*
- *The mitigation site shall include the establishment of a vegetated upland buffer no less than 50 feet wide on both sides of the recreated channel, where practicable.*
- *Provide grading details, location and quantities of all plant materials to be planted or seeded, native seed mixes to be used on all bare ground surfaces, monitoring procedures and schedules, identification of remedial measures, and performance criteria to be used by the agencies to assess success or failure of the mitigation effort.*
- *Long-term monitoring over a minimum of five years shall be funded by the Project Sponsor, subject to approval by the regulatory agencies.*
- *Annual monitoring reports shall be submitted to each permitting agency.*
- *A wetland delineation and habitat map shall be prepared during the final year of monitoring and included in the final annual report.*
- *Subject to review and modification by the regulatory agencies, specified success standards shall call for, at a minimum, 1:1 replacement of the creek channel that currently occurs, as detailed in the most recent wetland delineation report, at the end of the monitoring period.*

<u>Off-Site Wetland Mitigation</u>

- *In addition to the approximately 1.87 acres of wetlands to be created onsite, if required as a permit condition, additional mitigation credits may be purchased from a qualified wetland mitigation bank with a Service Area that covers the project site, or as otherwise approved in advance by the USACE and RWQCB. For example, the expanded Service Area of the Cosumnes Floodplain Mitigation Bank covers the project site. This mitigation bank sells Floodplain Mosaic Wetlands credits (404) credits that would appropriately mitigate impacts to wetlands within the existing channel. This, in combination with the onsite jurisdictional habitat mitigation, would provide opportunities (if needed) to comply with a higher permit-required replacement ratio for wetland impacts, and also provide opportunities for riparian habitat mitigation.*

- *In lieu of purchasing mitigation credits, if additional wetland mitigation (greater than the 1.87 acres proposed as part of the project) is required as a permit condition, the Sacramento District of the USACE has an "In Lieu Fee Program" to which the project sponsor may make payment. The fee is based on a fee schedule for various wetland habitat types. The fee is payable to the National Fish and Wildlife Foundation (NFWF) to be deposited in NFWF's Sacramento District Wetlands Conservation Fund.*

Facts in Support of Finding:

In the long term, the project would increase wetland habitat on the site by creating wetland habitat within the relocated and longer creek channel. These mitigation measures would therefore reduce significant impacts to the Creek and associated jurisdictional resources to less than significant levels because it would provide restored habitat at an equal or greater value to the lost habitat within the relocated creek segment, and provide for compliance with the conditions of permits to be issued by the USACE, RWQCB, and CDFW.

Potential Significant Impact F.2. Potential "Take" of Chinook Salmon and Steelhead

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

<u>Mitigation Measure F.2-1.</u>
To ensure that no aquatic vertebrates are stranded during abandonment of the existing South Branch of the South Fork of Littlejohn's Creek, the following measures shall be implemented:

- *Channel abandonment shall be restricted to the dry season (i.e., between June 15 and October 15).*
- *Channel abandonment shall occur only when the channel bottom has been dry for at least one week, that is, at least one week after the most recent release of water from Farmington Reservoir or any other sources.*
- *Prior to initiation of any work within the abandoned channel (e.g., construction of coffer dams, filling, connecting to the realigned channel), a qualified biologist approved by the USFWS and CDFW shall inspect the entire length of the work area for any stranded aquatic vertebrates; any stranded aquatic vertebrates shall be captured and relocated to the nearest body of water in the same stream system.*
- *Only a qualified biologist with all necessary federal and/or State permits may relocate fish and amphibians. Federally and State-listed species may only be relocated by biologist holding the appropriate federal or State permits. A record shall be maintained and submitted to the USFWS and CDFW of all fish and amphibians captured and relocated.*
- *Any observed mortalities of species-status species shall be immediately reported to the USFWS and CDFW.*

Mitigation Measure F.2-2.

- *Water shall be released into the restored South Branch of the South Fork of Littlejohn's Creek gradually to avoid creating a sediment plume downstream that could attract and cause mortality to Chinook salmon or steelhead from the San Joaquin River to enter the channel. After the relocation of the channel is completed and is ready to convey water, initial flows will be released at approximately 2 cubic feet/second (cfs), and shall be monitored to assure that water is released gradually through the channel for the first week after re-opening. This reduced flow would avoid causing a sediment plume. The restored channel shall not be opened prior to or during a significant rainfall event, and initial releases into the channel shall be coordinated with the Central San Joaquin Water Conservation District to ensure no significant releases are scheduled during the initial opening of the channel.*

Facts in Support of Finding:

While the presence of Chinook salmon is considered to be unlikely in South Branch of the South Fork of Littlejohn's Creek due to low and variable water flows, these mitigation measures will ensure that no salmon are stranded in the creek as a result of construction and that not down stream sediment plumes are created when the relocated creek is reopened. Therefore, these measures will reduce any potential impacts to Chinook salon /steelhead to a less than significant level.

Potential Significant Impact F.3. Potential "Take" of Giant Garter Snake.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

Mitigation Measure F.3. Participation in the San Joaquin Valley Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) affords the project proponent "Incidental Take" authorization for giant garter snake pursuant to the federal Endangered Species Act (ESA), California Endangered Species Act (CESA) and CEQA. Nonetheless, to minimize the potential for "incidental take" of giant garter snake, the following measures required by the SJMSCP (SJCOG 2000) shall be applied:

- A preconstruction survey for the species shall be conducted according to the requirements of the SJMSCP by a qualified biologist approved by the SJMSCP Technical Advisory Committee (TAC). If a giant garter snake is detected within the study area, the project will undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. The project shall also comply with any mitigation requirements specified for giant garter snake habitat by the SJMSCP TAC (SJCOG 2000). Avoidance and minimization measures may include the following, as specified by the TAC:
    - Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the SJMSCP Joint Powers Authority (JPA), with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.

- Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.
- Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
- Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.

- In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:
  - Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;
  - Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
  - Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
- If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.
- If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
- Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
- Other provisions of the USFWS *Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat* shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).

Facts in Support of Finding:

These mitigation measures would reduce potential impacts to the giant garter snake to less than significant levels because impacts to giant garter snake would be minimized or avoided. In addition, restoration of the realigned creek channel would provide at least equivalent habitat for the giant garter snake.

Potential Significant Impact F.4. Potential "Take" of Western Pond Turtle.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

Mitigation Measure F.4. Participation in the SJMSCP affords the project proponent Incidental Take authorization for western pond turtle pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for incidental take of the species, the following measure shall be required:

- *Preconstruction surveys for western pond turtles shall be conducted within the project study area by a qualified biologist approved by the SJMSCP TAC. If the species is detected, within the study area, the project shall undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. Avoidance and minimization measures may include the following, as specified by the TAC:*
    - *When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has begun or will begin before nesting periods end (the period from egg laying to emergence of hatchlings is normally April to November). The buffer zones shall be maintained until the nesting season has ended.*

Facts in Support of Finding:

These mitigation measures would reduce potential impacts to the Pacific pond turtle to less than significant levels because impacts to pond turtles would be avoided or minimized. In addition, restoration of the realigned creek channel would provide at least equivalent habitat for western pond turtle.

Potential Significant Impact F.5. Potential "Take" of Special-status Bird Species.
Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures imposed as a condition of project approval will mitigate this impact to less than significant*:*

Mitigation Measure F.5a. Participation in the SJMSCP affords the project proponent Incidental Take authorization for these species, both for direct impacts and loss of habitat. As specified in the SJMSCP, incidental take avoidance measures have been developed and must be implemented to conform to the SJMSCP; each species is discussed separately, below.

All SJMSCP Covered Bird Species are subject to the Migratory Bird Treaty Act (MBTA). The SJMSCP is based on the more stringent, federal standard for "take" pursuant to the federal ESA, which includes modification of habitat. Incidental Take Permits for SJMSCP-covered bird species are included in the SJMSCP, to allow for the conversion of habitat with appropriate creation of compensatory habitat for these species (SJCOG 2000). However, to conform to the MBTA, the Incidental Take Minimization Measures of the SJMSCP may not result in a "take", as defined by the MBTA, of SJMSCP Covered Bird Species. The Incidental Take Minimization Measures in the SJMSCP have been designed to avoid such a "take."

To conform to the SJMSCP in regards to protecting potentially occurring nearby active nests of Swainson's Hawk, the following measures shall be followed:

- *Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (February 16 through August 31), a preconstruction survey for Swainson's hawk nests shall be performed by a qualified biologist.*
- *If an occupied Swainson's hawk nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest. The setback distance may be smaller, subject to CDFW approval. Setbacks shall be marked by brightly colored temporary fencing.*
- *If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.*

As outlined in the SJMSCP, when a site inspection indicates the presence of a nesting Golden Eagle, the following measures shall be followed:

- *Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the nesting season (i.e., normally approximately February 1 - June 30), a preconstruction survey shall be performed by a qualified biologist.*
- *If an occupied golden eagle nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season (i.e., normally approximately February 1 - June 30) for the period encompassing nest building and continuing until fledglings leave nests.*
- *This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied.*
- *Setbacks shall be marked by brightly colored temporary fencing.*

Participation in the SJMSCP affords the project proponent Incidental Take authorization for White-Tailed Kite in the form of habitat conversion provided the following Incidental Take Minimization Measures,-as outlined in the SJMSCP, are followed:

- *Prior to the initiation of tree removals/pruning, ground clearing, grubbing, grading or excavation activities scheduled to occur during the nesting season (i.e., normally approximately February 15 – September 15), a preconstruction survey shall be performed by a qualified biologist.*
- *A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests.*

- *This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.*

Consistent with the measures outlined in the SJMSCP and CDFG 2012, the following impact minimization measures shall be followed for Burrowing Owls:

- *Consistent with the protocols outlined by the CDFG (2012 Appendix D), a "Take Avoidance Survey" shall be performed by a qualified biologist (as defined in CDFG 2012, page 5) no less than 14 days prior to the initiation of ground disturbance. A final survey shall be conducted 24 hours prior to ground disturbance.*
- *Ongoing rodent control measures at the landfill facility shall conform to the guidelines outlined in the SJMSCP, Appendix A[1] (see Impact F.10, below).*
- *The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins; tall vegetation will discourage colonization of the site by burrowing owl.*
- *Alternatively, if burrowing owls are not known or suspected on a project site and the area is an unlikely occupation site for red-legged frog, San Joaquin kit fox or tiger salamander, the Project Proponent may disc or plow the entire project site to temporarily close ground squirrel burrows and render the construction site temporarily unusable by burrowing owls.*
- *During the breeding season (i.e., 1 February through 31 August), occupied burrows shall not be disturbed in accordance with the following restrictions (CDFG 2012):*
    - *Between 1 April and 15 August, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low disturbance levels, and 500 m (1640 ft) for medium and high disturbance levels.*
    - *Between 16 August and 15 October, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low and medium disturbance levels, and 500 m (1640 ft) for high disturbance levels.*
    - *Between 16 October and 31 March, minimum setbacks from occupied burrows shall be 50 m (164 ft) for low disturbance levels, 100 m (328 ft) for medium disturbance levels and 500 m (1640 ft) for high disturbance levels.*
- *Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping. During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site may be evicted from the project site by passive relocation as described by the (CDFG (2012). Burrow exclusion and closure is not permitted during the breeding season.*

[1] USEPA 2000, cited in SJMSCP (Appendix A)

Although little suitable nesting habitat is present on site for the Loggerhead Shrike, as outlined in the SJMSCP, the following incidental take avoidance measures shall be followed for the Loggerhead Shrikes:

- *Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (i.e., February 1 - August 15), preconstruction survey shall be performed by a qualified biologist.*
- *A setback of 100 feet from loggerhead shrike nest sites shall be established and maintained during the nesting season (i.e., February 1 to August 15) for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.*

As outlined in the SJMSCP, the following incidental take avoidance measures shall be followed for the Northern Harrier and California Horned Lark:

- *Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (i.e., February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.*
- *A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.*

As outlined in the SJMSCP, the following incidental take avoidance measures shall be followed for the Tricolored Blackbird:

- *Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (i.e., February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.*
- *A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.*

<u>Mitigation Measure F.5b.</u>

- *Any observations of Swainson's hawk, Golden eagle, white-tailed kite, burrowing owl, loggerhead shrike and/or California horned lark during the falconry program shall be recorded and monitored by the falconer. If any interactions (i.e. chasing) between the trained falcons and Swainson's hawks or other special status bird species are observed, this shall be documented and reported to the USFWS Migratory Bird Treaty Office and CDFW within 48 hours of occurrence. Appropriate additional measures to avoid impacts to special status birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFW.*

Facts in Support of Finding:

Landfill construction can disturb the nesting sites of special status bird species. These mitigation measures would reduce potential impacts to the Swainson's hawk, Golden eagle, white-tailed kite, burrowing owl, loggerhead shrike, tricolored blackbird, and/or California horned lark to less than significant levels because impacts to nesting birds and their nesting sites would be avoided.

Potential Impact Impact F.6. Impacts to Migratory Bird Species.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measure imposed as a condition of project approval will mitigate this impact to less than significant*:*

Mitigation Measure F.6. P

- Preconstruction surveys, consistent with the MBTA and the SJMSCP, shall be conducted for nesting birds during the nesting season (i.e., February 1 – September 1). Appropriate measures to avoid impacts to nesting birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFW.

Facts in Support of Finding:

Landfill construction can disturb the nesting sites of special status bird species. This mitigation measure would reduce potential impacts to migratory bird species to less than significant levels because impacts to nesting birds and their nesting sites would be avoided.

Potential Significant Impact F.8. Loss of Nonnative Annual Grassland and Ruderal Vegetation, and Freshwater Emergent Wetland

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

Mitigation Measure F.8.

- *The project shall comply with the SJMSCP mitigation requirements for the conversion of row and field crop lands (SJCOG 2000). Under the SJMSCP (2000), each acre of Swainson's hawk habitat (i.e., Agricultural Habitat Lands) converted to non-open space uses would be mitigated by the establishment of 1 acre of Row and Field Crop/Riparian Preserve (a 1:1 mitigation ratio). This measure would apply to the 8.6 acres of land to be developed in the southern portion of the property. This would reduce this impact to a less than significant level.*

Facts in Support of Finding:

This mitigation measure would reduce this impact to a less than significant level because because the loss of habitat would be fully mitigated.

Potential Significant Impact F.10. Use of Rodenticides in the Capped Areas of Landfill Could Result in Adverse Impacts to Wildlife.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures imposed as a condition of project approval will mitigate this impact to less than significant*:*

Mitigation Measure F.10. *Rodenticides and methods of application used at the landfill shall be reviewed by a qualified biologist approved by the SJMSP TAC, to determine if they reflect the most effective and safe methods for controlling rodents. That biologist shall make recommendations for improvement if needed.*

Facts in Support of Finding:

This mitigation measure would reduce these potential impacts to less than significant levels because rodenticide use would be strictly monitored and limited to TAC-approved levels.

4.1.6 Water Quality

Summary of Potential Impacts

An evaluation of potential impacts to Water Quality from the project is found in Section IV. G (Hydrogeology and Water Quality) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) potential impacts to surface water from storm water coming in contact with landfill refuse; (2) uncontrolled erosion from soil stockpiles and landfill surfaces, or inadvertent spills of refuse or other substances onsite, could contaminate surface water; (3) groundwater contamination could potentially occur if the leachate collection systems for the expansion area failed; (4) groundwater contamination could potentially occur if the leachate collection systems for the expansion area was not properly managed; (5) the re-routing of the South Branch of South Littlejohns Creek could result in flooding if the new alignment is not designed to accommodate peak flows; (6) adding significant new landfill volume could potentially contribute to the known VOC-contaminated plume and other groundwater contamination; (7) potential decreases in groundwater resources could occur due to loss of recharge surface area from the project; and (8) the potential for increased sedimentation to occur during the construction phase of the relocation of the South Branch of South Littlejohns Creek.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Water Quality impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact G.1: If rainfall runoff was not properly controlled, surface water bodies could become contaminated through contact with the landfill refuse.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *The drainage study utilizes San Joaquin County local rainfall data, and the Rational Method would be used to estimate maximum potential runoff from a 1,000-year, 24-hour storm event. The surface water control system and drainage control structures for the proposed project would be sized to accommodate the calculated peak flows.*
- *As part of the design plans for the proposed landfill expansion, Forward will complete calculations of the 1000-year, 24-hour storm event peak discharges. The hydraulic and drainage study would be used to design appropriate drainage controls. Drainage controls would be designed to prevent contact between surface water and refuse. Site run-on and run-off control facilities consist of drains and perimeter ditches that channel surface water to holding and evaporation ponds on the site. The surface-water collection drain system would be designed to divert the water to the onsite sedimentation basins. All waste at the proposed Forward Landfill would be separated from the North and South Branches of South Littlejohns Creek by a levee system or other acceptable method designed to protect the site from a 100-year flood event.*
- *Channel design features are proposed as part of the expansion project: The project includes channel reconfiguration and localized flood protection berms to isolate the landfill surfaces from floodwaters.*
- *The project design shall also include provision of replacement floodplain area and storage volume in an easement along the relocated South Branch of South Littlejohns Creek.*
- *The channel and floodplain storage easement are designed to accommodate the 100-year, 24-hour storm. The design would also include a three-foot freeboard.*

All of these measures have been or will be incorporated into the design of the landfill expansion and the relocated South Branch channel. Therefore, potential surface water drainage impacts would be reduced to a less than significant level.

Facts in Support of Finding:

If rainwater falling on the new landfill area contacts the landfill refuse and picks up dissolved contaminants and is not controlled by the drainage system, surface water could migrate to Littlejohns Creek and flow downsteam to the San Joaquin River. The applicant's report for the relocation of the South Branch of South Littlejohns Creek report (Questa Engineering 2017) recommends a project design feature that would control landfill and site drainage run-on and runoff, so that run-on and run-off would be controlled and channeled to onsite stormwater/sedimentation ponds. The Questa study uses a 100-year storm, which is the requirement applicable to the design of channels.

The drainage study for storm water features on the landfill utilizes San Joaquin County local rainfall data, and the Rational Method was used to estimate maximum potential runoff from a 1,000-year, 24-hour event. The 1,000-year, 24-hour storm criteria are a RWQCB requirement for Class II landfills. The surface water control system and drainage control structures for the proposed project are sized to accommodate the calculated peak flows. The proposed surface water control system would also divert run-on from properties surrounding the landfill.

The Central Valley (Region 5) RWQCB, is responsible for the oversight of the currently proposed landfill expansion and the agency reviewing the Forward Landfill application that might affect water quality including surface water. The RWQCB provides oversight for the protection of surface water and groundwater resources that could be compromised by the landfill operations over time by requiring (as part of the WDRs) the monitoring, sampling, analyses, and reporting of surface water and groundwater. The RWQCB has reviewed or is currently in the process of reviewing the various reports and communication related to the Forward expansion. With or without the proposed project, the RWQCB will continue to regulate the Forward Landfill. This oversight continues after the landfill is closed for a minimum post-closure period of 30 years.

Further, a Central Valley Flood Protection Board encroachment permit with endorsement by the San Joaquin County Flood Control and Water Conservation District is required for any work within the channels or within 25 feet of the top of bank of the creeks, and the realignment of the South Branch must be approved by the Board. Questa Engineering Corp (Questa) has developed plans for the realigned South Branch channel. The new channel is designed to carry the 100-year flood flows within its banks. Erosion protection would be provided in areas with high velocities or sharp bends.

The mitigation measures described above will properly control storm water run off and reduce this potential impact to less than significant.

Potential Significant Impact G.2: If erosion from soil stockpiles and landfill surfaces are not properly controlled, or inadvertent spills of refuse or other substances onsite occurred, surface water could potentially become contaminated.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *The current drainage control structures and monitoring would continue to be implemented to control erosion and sedimentation in the expansion areas. Proposed structural controls include the drainage control system and daily cover. Operational controls include maintenance of the drainage system by keeping ditches clear of debris and excessive vegetation, and making needed repairs to drainage structures. Corrective measures would be implemented if inspections show excessive erosion or damage to drainage channels. Any areas showing erosive effects would be mitigated by removing loose debris followed by replacement, regrading, and compacting the area. Monitoring and protection against sediment from entering the Littlejohns Creek channel would be implemented, including the diversion of part of Littlejohns Creek farther away from the landfilled area.*
- *In order to minimize sediment transport to Littlejohns Creek, landfill slopes, ridgetops, and peripheral areas would be revegetated to inhibit erosion.*

All of these measures have been or will be incorporated into the design of the landfill expansion and the relocated South Branch channel. Therefore, potential surface water drainage impacts would be reduced to a less than significant level.

Facts in Support of Finding:

If erosion from stockpiles and landfill refuse were not properly controlled, this could create sedimentation in Littlejohns Creek and cause contaminants in the refuse to migrate in the surface water and be deposited downstream. Wet Weather Plans and Erosion Control Plans have historically been in place at the Forward Landfill to protect against such uncontrolled erosion and sedimentation. No new regulatory issues have been identified with regard to management of this erosion potential. Further, as stated in the previous finding, the RWQCB provides oversight for the protection of surface water and groundwater resources that could be compromised by the landfill operations over time by requiring (as part of the WDRs) the monitoring, sampling, analyses, and reporting of surface water and groundwater. Therefore, the mitigation measures proposed as part of the project will reduce this potential impact to less than significant.

Potential Significant Impact G.3: Potential groundwater impacts could result if the proposed liners and leachate collection systems for the Landfill expansion areas were not properly designed or installed, or if they were to fail.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *A pan lysimeter (secondary liner) would be installed under the sump area, as previously required by the RWQCB;*
- *The liner and leachate collection system for the two new expansion areas would meet Title 27 requirements and be reviewed and approved by the RWQCB and new WDRs issued, as warranted;*

- *The regulatory required separation between the liner and groundwater shall be implemented to allow for chemicals in the leachate to attenuate before reaching the groundwater, should the leachate breach the liner and leachate collection system;*
- *Leak location testing of the liner in each WMU shall be conducted before waste can be disposed in that Unit, as required by the RWQCB;*
- *If any modifications to the leachate collection system and associated monitoring are required by the RWQCB, the landfill operator shall implement those changes;*
- *The liner system will be overlain by a protective operations layer consisting of a one-foot thickness of soil and a one-foot thick gravel layer that serves as the leachate collection layer. This two-foot layer will serve to protect the liner system from sharp or jagged materials in the waste.*
- *The operator will remove any hazardous materials spotted during delivery, thus minimizing the potential for leachate impacts to groundwater if a break occurs in the liner or the leachate collection system.*
- *Landfill operations and maintenance are designed with appropriate schedules to identify and correct any failures in the leachate collection system.*

In addition, the RWQCB will review the updated Joint Technical Document (JTD), the leachate collection system, and associated monitoring, and could require changes to the planned leachate collection system or monitoring. The landfill will be required to comply with the Waste Dischage Requirements permit issued by the RWQCB.

Facts in Support of Finding:

Without a properly designed landfill cell liner and LCRS installed in the project expansion areas, landfill leachate could percolate through the ground underlying the landfill units and potentially contaminate groundwater.

An additional 8.7 acres of permitted landfill acreage is proposed in the NE corner of the existing landfill. Landfilling is already permitted in the area of the landfill south of the South Creek, however, the proposed relocation of the creek would create an additional 8.6 landfill acres. This new acreage is surrounded by other lined cells of the Forward Landfill. The additional landfill acreage in the proposed project will be designed, constructed and operated in accordance with federal and California landfill modern regulatory design standards, all of which will be subject to the prior approval and oversight of the RWQCB. As described in the SEIR Project Description, the new landfill cells will be lined with a system designed to accommodate the geologic and hydrogeologic conditions at the site and include a composite lining system composed of two-feet of clay with permeability less than 1×10^{-7} cm/sec and overlain with a 60-mil HDPE geomembrane. The composite lining system will be overlain by a leachate collection and removal system (LCRS) consisting of a cushion geotextile, 1-ft thick granular drainage layer (including a network of perforated HDPE pipes), another geotextile, and a 1-ft thick soil operations layer.

The LCRS drains to a composite-lined sump located in the low spot of the WMU. Leachate is routinely pumped and removed from the sump to minimize the leachate head (hydraulic pressure)

on the composite lining system. Leachate is disposed in the onsite Class II double-composite-lined leachate evaporation ponds.

The LCRS is designed using very conservative estimates of precipitation and infiltration based on local climatological data. The redundant perforated pipeline and gravel blanket collection systems would provide additional factors of safety to ensure against leachate accumulation over the low permeability elements of the liner system, and a pan lysimeter system beneath the sump (i.e. low point) of the composite liner system would allow for continuous monitoring of the composite liner system performance.

The system described above is known as a "Subtitle D liner and LCRS", as it conforms with the federal regulations for municipal solid waste landfill (MSWLF) liners promulgated in 40 CFR 258 Subtitle D. The federal Subtitle D liner system was developed to establish minimum national criteria for all MSWLFs to "ensure the protection of human health and the environment." Extensive research was performed by the EPA to develop the prescriptive Subtitle D liner system, as detailed in the Solid Waste Disposal Facility Criteria, Technical Manual (EPA, April 1998 Revision; Original November 1993) and as discussed in the Preamble to the promulgation of the 40 CFR 258 regulations (Federal Register, Vol. 56, No. 196, Rules and Regulations, October 9, 1991). As detailed in the EPA Technical Manual, "the composite liner system is an effective hydraulic barrier because it combines the complementary properties of two different materials into one system: 1) compacted soil with a low hydraulic conductivity; and 2) an FML (FMLs are also referred to as geomembranes)."

Subtitle D Liners have been used effectively in MSWLFs for over the last quarter century throughout the United States. An extensive study of the field performance of Subtitle D lined landfills was conducted by the USEPA for landfills throughout the US (Assessment and Recommendation for Improving the performance of Waste Containment Systems, USEPA/600/R-02/099; Bonaparte, Daniels, and Koerner, 2002) that identified only one Subtitle D lined facility where groundwater or surface water was impacted. The impact was due to landfill gas migrating beyond the edge of the liner system and to groundwater. The landfill gas extraction system and the liner termination at the Forward landfill have been designed to prevent this occurrence.

In September 2002, Forward submitted a site-specific analysis of the effectiveness of the prescriptive Subtitle D liner in preventing leakage at the Forward Landfill (Performance Demonstration for a Single Composite Liner, Forward Landfill; GLA 2002) to comply with a Central Valley Regional Water Quality Control Board (CVRWQCB) resolution for all landfills within its region (Resolution No. 5-00-213, September 15, 2000). The document concluded that "studies that were performed for this project demonstrate that landfill leachate will not impact groundwater at the Forward Landfill" using the Subtitle D system. The study included fate and transport analyses that "indicate that leachate leakage would have an insignificant (essentially undetectable) effect on groundwater quality beneath the site." This document was reviewed and approved by the RWQCB and used in establishing Waste Discharge Requirements (WDRs) for the site.

In addition to building WMUs at Forward with the prescriptive Subtitle D system, Forward implements extensive third-party construction quality assurance (CQA) during construction of the liner and LCRS components. The CQA includes compliance with numerous testing requirements, including permeability tests of the clay liner component and electric leak detection tests of the

geomembrane to ensure that no holes are present. When the geomembrane is installed, and following placement of the overlying LCRS layer, a CQA Report is prepared following construction and submitted to the CVRWQCB for approval prior to any waste being disposed in the unit.

In addition to the design and construction of the WMUs, Forward's operating and monitoring programs mitigate potential leakage from lined landfill units. These include:

- Leachate collection, management, and monitoring
- Groundwater monitoring
- Surface water drainage management and monitoring systems
- Landfill gas collection systems and monitoring programs
- Load checking and Hazardous Waste Exclusion Program (HWEP)
- Daily, intermediate, and final soil covers

As mentioned above, to monitor the landfill for leakage from the liner system to the vadose zone, pan lysimeters are installed beneath the proposed liner system sump to monitor for the presence of leachate. The sump is located at the lowest and, therefore, most critical part of the WMU, as all leachate flows to and is collected and removed from this point. A pan lysimeter is essentially a secondary sump (or depression) constructed under the primary sump. The pan lysimeter is lined with a composite liner system and filled with permeable material, such as gravel. A riser pipe allows access to the pan lysimeter to detect, sample, and remove liquids within the pan lysimeter and allows for a secondary containment system beneath the primary sump.

During the operational life of the landfill, and through closure and the post-closure maintenance period, the perimeter of the site adjacent to the proposed expansion areas would also include additional groundwater monitoring wells. Perimeter soil-pore gas monitoring probes would also be constructed around each of the expansion areas and monitored for the presence of landfill gas. These proposed groundwater monitoring wells, lysimeters, and gas probes would be monitored quarterly and reported to the CVRWQCB in accordance with Title 27 regulations.

In the highly unlikely event that groundwater contamination from the landfill is identified, the RWQCB would be immediately notified, and they would require additional monitoring, evaluation, groundwater remediation, or other measures to be implemented to minimize the impact on the environment, and ensure that beneficial uses of the local groundwater supply are not compromised. The groundwater and leachate chemistry trends identified throughout the active life of the landfill and post-closure maintenance period would provide guidance to the RWQCB as to whether additional groundwater monitoring or corrective actions are necessary beyond the required 30-year post-closure period. The existing groundwater remediation infrastructure for the Austin Road Unit could be utilized to treat potential contamination from the northeast expansion area given the proximity and the local groundwater flow direction in that part of the site.

Forward would also implement source-control measures to capture landfill gas (LFG) in the additional lined expansion areas to prevent the potential conveyance of contaminants to groundwater. These measures include LFG extraction and delivery to the on-site cogeneration plant. The existing LFG extraction wells and the LFG extraction system will be expanded to include LFG extraction wells in the proposed northern and southern expansion area to prevent any LFG impacts to groundwater.

As far as potential contamination of surface water bodies such as LittleJohn's Creek, the base of all WMUs are below the elevation of the creek and, as discussed in the preceding paragraphs, the liner and LCRS in these WMUs is protective of underlying groundwater. If any spills were to occur outside a lined WMU, the area would be remediated in accordance with Forward's Emergency Action Plan contained within Forward's Site Health and Safety Program (Forward Landfill Joint Technical Document, SWT, January 2018). Also, all surface water runoff from operating areas would be routed to onsite sedimentation and stormwater ponds and away from the creek. Therefore, the potential for a spill affecting the function or habitat of the creek is considered less than significant.

Therefore, the mitigation measures proposed as part of the project will reduce this potential impact to less than significant.

Potential Significant Impact G.4: If not properly managed, the volume of leachate generated from the expansion areas could result in potential groundwater impacts.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

- *The proposed measures to address concerns about additional leachate generation as a result of the expanded landfill will be addressed in the JTD with the presentation of the updated EPA HELP model results based on the projected volumes of refuse, a historical analyses of actual leachate generation volumes (which were at significantly higher volumes than the model predicted for peak year rainfall) and the description of the leachate collection system designed to meet the maximum probable leachate generated. Engineering control systems (leachate collection system, drainage control, groundwater and gas controls), monitoring programs, and institutional controls have been presented in the JTD, which has been reviewed by the RWQCB. Reporting on leachate generation volume and quality is a requirement of the RWQCB-stipulated progress reporting through the various proposed landfilling phases.*
- *The landfill cell anchor trenches would be elevated 2 to 3 feet above the surrounding land to minimize the possibility of water from major storm events draining into the cells and adding to the volume of leachate.*

Facts in Support of Finding:

Spacing of LCRS lateral pipes and headers was evaluated by HELP2 leachate generation modeling, and modified by the higher historical indications of leachate volume. Leachate would be collected and discharged to the new onsite leachate ponds in addition to the existing ponds. If during the service life of the landfill, the demand on the leachate impoundment exceeds capacity, Forward would implement an alternative leachate management plan. Leachate in excess of the impoundment's capacity would either be pumped to temporary onsite tanks, trucked for offsite disposal at the City of Stockton Municipal Utility Department wastewater treatment plant, or trucked to another offsite licensed treatment and disposal facility. Leachate stored in the temporary onsite tanks may be released back into the impoundment at a later date. These measures will reduce this potential impact to less than significant.

In addition, the RWQCB will review the design of the leachate collection system, and require associated monitoring, and could require changes to the planned leachate collection system or monitoring. The landfill will be required to comply with the Waste Discharge Requirements permit issued by the RWQCB.

See also the additional findings and supporting facts above regarding Potential Impact G.3, which are incorporated herein by this reference.

Potential Significant Impact G.5: The re-routing of the South Branch of South Littlejohns Creek could result in flooding if the new alignment is not designed to accommodate peak flows.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project as described in the Project Description and design study for the proposed creek realignment will mitigate this impact to less than significant:

- *The channel must function as a natural corridor, require little or no maintenance once the vegetation is established, and should provide 100-year flood protection.*
- *The channel slope and depth will be appropriate to the 100-year flood protection. The channel slope and depth are based on the invert elevations of the existing channel at the start and end of the new channel. The slope between these two points along this alignment is designed for 0.00055 ft/ft, which translates into a ground surface profile along the alignment a channel depth between 10 and 12 feet.*

Facts in Support of Finding:

The updated (April, 2018) design report for the relocation of the South Branch of South Littlejohns Creek includes objectives to provide adequate flood control (i.e., has capacity to carry the 100-year flow within its banks) in the realigned section of the creek; and provide a stable channel design that meets or exceeds the functions and values of the existing creek. The realigned channel has been designed to carry the 100-year flood flows within its banks. Erosion protection would be provided in areas with high velocities or sharp bends. The U.S. Army Corps of Engineers HEC-RAS hydraulic model was used to determine design water surface elevations and estimate channel velocities and other pertinent flow parameters for stable channel design. The appropriate responsible agencies including the RWQCB and San Joaquin County Flood Control and Water Conservation District must review and approve the updated April 2018 design for the relocation of the South Branch of South Littlejohns Creek. These measures will reduce this potential impact to less than significant.

Potential Significant Impact G.6: Adding significant new landfill volume could potentially contribute to the known VOC-contaminated plume and other groundwater contamination.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

- *Forward Landfill has agreed to a short-term and long-term mitigation of the offsite impacts of the existing VOC plume, to provide an alternative source of drinking water to those residents in the downgradient area who are using domestic water wells for drinking water and whose domestic wells may be adversely affected by the VOC plume. A long-term solution currently being investigated by Forward to assist those residents on Newcastle Road, who are already being provided with bottled drinking water by Forward, is for Forward to provide the property owners on Newcastle Road in the footprint of the downgradient plume with municipal piped water to replace the current use of the supply wells;*
- *The residences on Newcastle Road would continue to be supplied with bottled water until municipal piped water is provided;*
- *Residents on Austin Road would continue to be supplied with bottled water from the City of Stockton until municipal piped water is provided.*
- *Because of the potential for impact from the plume to the downgradient receptors determination of the sampling program frequency and any changes to it, along with the appropriate mitigation, is the responsibility of the RWQCB and must be carried out under their permit authorization; and*
- *The groundwater capture and remediation system could be augmented to capture the current offsite plume to the satisfaction of the RWQCB based on their review of future source control reports.*

Facts in Support of Finding:

The Austin Road Landfill was purchased by Forward from the City of Stockton (City) in 2000. At that time an area of groundwater contaminated with volatile organic compounds (VOCs) had been identified as originating from the unlined Austin Road Landfill. Pursuant to its agreement with the City, Forward took over the responsibility from the City for monitoring and remediating this pre-existing plume under supervision of the RWQCB, the lead agency responsible for oversight of groundwater monitoring and remediation activities associated with the Forward Landfill.

In contrast to the unlined Austin Road Landfill and older Forward Landfill units, the proposed Project includes the addition of lined landfill areas or "cells." The lined landfill cells would be designed and constructed in accordance with current federal and state Subtitle D standards. The effectiveness of Subtitle D landfill liners in preventing leakage is well documented and, therefore, the lined cells would not contribute to the existing legacy groundwater issues associated with the old unlined landfill cells. See the finding and supporting facts above regarding Potential Impact G.3, which are incorporated herein by this reference.

The RWQCB issued Cleanup and Abatement Order R5-2017-07-03 in 2017 (CAO) to address groundwater impacts from the VOCs associated with the Former Austin Road Sanitary Landfill (Austin Road Unit). The Austin Road Unit was unlined and did not operate leachate collection and

removal systems. The Austin Road Unit is now overlain by waste management units (WMUs) that are lined and contain those systems.

Dissolved-phase VOCs impacts from the Austin Road Unit have been documented in groundwater downgradient of the site to the northeast. Extensive site investigation and assessment activities have been conducted to delineate the extent of VOC impacts with many monitoring wells. Most recently, the western portion of the plume was delineated as described in the Forward Landfill – Well Installation Report Evaluation Monitoring Program – West Side report by Geo-Logic Associates (GLA 2018). Additional assessment activities are in progress and will be completed in accordance with RWQCB oversight in 2019.

Concurrently, remediation activities are in progress to restore beneficial use conditions to the impacted groundwater. A groundwater extraction and treatment system (GTS) is operated at the point of compliance (northern boundary of Austin Road Unit). The GTS is operated in accordance with the CAO and with CVRWQCB Waste Discharge Requirements (WDRs) for the site. Upgrades and optimization of the GTS are in progress and will be implemented with concurrence from the CVRWQCB. Additionally, work is in progress to design a remedy for VOC impacts downgradient of the point of compliance. The downgradient remediation plan is required by the CAO and will be submitted to the CVRWQCB in a Revised Engineering Feasibility Study in 2019. These activities, however, are not a condition of, or related to, the need to monitor for the proposed project waste cell additions to the south of this area.

Forward will continue its remediation efforts regarding the legacy plume from the Austin Road landfill whether or not the project is approved. Approval of the project will not affect the preexisting groundwater contamination, nor will it create additional groundwater contamination, based on the analysis provided in the SEIR. Adoption of this mitigation measure will reduce any potential impacts to less than significant.

Potential Significant Impact G.7: Potential decreases in groundwater resources due to loss of recharge surface area.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant*:*

- *Continued recharge of extracted and treated groundwater. In the GeoLogic 2017 Corrective Action Monitoring Workplan the construction of a storage basin for treatment system effluent that would subsequently infiltrate and recharge the groundwater is proposed. Although the recharge program does not specifically address the loss of infiltration within the expansion area it is designed to generally meet the intent of the water district to minimize overdrafting.*

Facts in Support of Finding:

A regional groundwater recharge program is being considered by San Joaquin County Flood Control District and Water Conservation District (SJCFCWCD) for conjunctive use. Such groundwater storage and recharge programs are designed to store excess water for recharge use during the dry summer months. This introduced recharge would not occur during the seasonal high

groundwater of the end of the wet weather cycle, and would not result in groundwater elevations that would be higher than historic levels. The impact from the loss of direct infiltration over the expansion area will be less than significant.

Potential Significant Impact G.8. Increased sedimentation during the construction phase of the relocation of the South Branch of South Littlejohns Creek.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures will be imposed as a condition of the project approval and will mitigate this impact to less than significant:
Mitigation Measure G.8:

- *Implement the proposed Questa Engineering design specifications and standard construction BMPs during the construction phase of the South Branch of Sough Littlejohns Creek realignment. Construction of the realigned creek channel shall be implemented during the dry season.*

Facts in Support of Finding:

Construction and operation of the relocated South Branch of South Littlejohns Creek channel could result in additional sedimentation and surface water quality impact during the construction phase and shortly thereafter if appropriate BMPs to minimize such impact are not adhered to. However, the proposed Questa Engineering design and construction BMPS will minimize any sedimentation and water quality impact to a level less than significant.

4.1.7 Soils and Geology

Summary of Potential Impacts

An evaluation of potential impacts to Soils and Geology from the project is found in Section IV. G (Solids and Geology) of the Final 2013 EIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) seismic shaking could impair or otherwise compromise both the existing and proposed (for the new expansion areas) Class II liner and associated leachate collection system integrity, causing slope instability, damage to drainage features, or differential settlement of the landfill over the life of the project, or following closure; (2) the potential for slope instability caused by an earthquake could result in damage to existing and proposed landfill administrative facilities, scale house, groundwater treatment system, composting storage, and support facilities; and increased erosion and sedimentation could occur, particularly during the construction phases of the landfill, due to grading and borrow soil excavation and transport operations).

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid

potential Public Health and Safety impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact Impact G.1: Seismic shaking could impair or otherwise compromise both the existing and proposed (for the new expansion areas) Class II liner and associated leachate collection system integrity, causing slope instability, damage to drainage features, or differential settlement of the landfill over the life of the project, or following closure.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures incorporated as part of the project will mitigate this impact to less than significant:

The following procedures have already been completed:

- *The project sponsor has prepared a seismicity study for the site, with details in Appendix D of the Geotechnical Investigation Report (Geo-Logic, 2008a, 2008b) and the Geosyntec (1999) report. If the potential maximum peak ground acceleration in the seismicity study is greater than that assumed in the preliminary design, the final project design analysis will make modifications needed to meet the factor of safety (determinations may be subject to the approval of the CalRecycle and/or RWQCB). Impacts to the new liner and drainage system installed will be monitored as appropriate based on any stipulations of the CalRecycle and/or RWQCB.*

Seismic stability analyses will be performed by Professional Engineers registered in the State of California. In addition, both the RWQCB and CalRecycle will review the seismic analyses as part of issuance of WDRs and the SWFP, respectively. Implementation of these procedures, along with appropriate slope maintenance that is also proposed as part of the project, would reduce this impact to a less-than-significant level.

Facts in Support of Finding:

The potential seismic shaking impacts described have been evaluated in the *Joint Technical Document (2007 update), Geo-Logic (2008a, 2008b) and Geosyntec (1999)* reports. Site-specific geotechnical and seismic analyses studies were performed (Geo-Logic, 2008a, 2008b). The stability analyses for the proposed landfill expansion detailed in the JTD indicates a factor of safety of at least 1.5, on par with the expectation of CalRecycle, the reviewing regulator. These studies concluded that the design criteria used (maximum peak horizontal accelerations and durations) are conservatively based on the maximum seismic potential, given the location of active faults and their associated maximum credible earthquakes. The Geo-Logic reports (2008a, 2008b) used MCE of 6.7 on the Great Valley V fault approximately 20 miles form the site for their pseudo-static and failure analyses. The seismic deformation calculations showed an acceptable factor of safety.

Slopes along the banks of Littlejohns Creek could potentially be susceptible to localized creek bank failure in the case of the largest peak accelerations and shaking durations; however, since there is a low likelihood of a major earthquake generating peak acceleration at the site over the lifetime of the project, this potential impact is negligible.

With respect to potential liquefaction of the proposed expansion area, the geotechnical data collected and modeled indicated that under the loading design of the maximum credible earthquake horizontal site acceleration, the material is too dense to liquefy. The calculated factor of safety against liquefaction ranged from 1.4 to 8.0 compared to the 1.1 to 1.3 required factor of safety (GeoLogic, 2008a, 2008b). Differential settlement of the proposed landfill expansion area is, therefore, unlikely.

Potential Significant Impact G.2: Slope instability caused by an earthquake could result in damage to existing and proposed relocated landfill administrative facilities, scale house, groundwater treatment system, and support facilities.

Finding:

The following procedures are proposed as part of the project and will reduce this potential impact to less than significant:

- *Overall reduction—or, in some cases, elimination or improvement—of slope instability at the project site can be achieved through the implementation of the seismic design measures designed to meet CCR Title 27.*

- *Seismic stability analyses will be performed by Professional Engineers registered in the State of California. In addition, both the RWQCB and CalRecycle will review the seismic analyses as part of issuance of WDRs and the SWFP, respectively.*

Facts in Support of Finding:

State laws and regulations require adherence with seismic design standards for landfills that will be followed by a licensed professional engineer, whose design will be subject to approval by the RWQCB and CalRecycle. Implementation of these procedures would reduce this impact to a less-than-significant level.

Potential Significant Impact G.3: Increased erosion and sedimentation could occur, particularly during the construction phases of the landfill, due to grading and borrow soil excavation and transport operations

Finding:

The following procedures are proposed as part of the project and will reduce this potential impact to less than significant:

- *The applicant's Joint Technical Document (2007) section 7 references an erosion-control plan that delineates various actions to minimize erosion and sedimentation, including*

maintaining the effectiveness of the surface drainage control structures by keeping drainage ditches clear of debris and excessive vegetation and by making repairs, as necessary, to correct the effects of physical damage, erosion, settlement, or other events detrimental to effective operation of the drainage control system, and appropriate construction, landscaping, and maintenance of graded slopes and subsurface drainage systems. As part of that plan, grading operations would be scheduled to avoid the rainy season and be implemented by interim engineering control measures. Before grading is stopped, slopes would be directed to carry runoff to areas where erosion and sedimentation can be controlled. Truck beds would be hosed down to reduce soil spillage on paved roads and wind-blown dust. The proposed expansion area would incorporate the same features as used for the existing landfill. In addition, the relocation of Littlejohns Creek could lessen the sedimentation potential to the creek.

- *Completed cells will be stabilized by the planting and maintenance of drought-resistant grasses. This will inhibit wind and water erosion and maximize the fertility of the soil in order to facilitate revegetation.*
- *Temporary plantings, geofabric drapes, and erosion-preventing diversions of surface water will be constructed as appropriate on temporary slopes.*
- *Regular operational and post-closure monitoring of erosion control structures and plantings will be done for a minimum of five years.*

Facts in Support of Finding:

Soil disturbance and topographic alterations during planned staging of the landfill could occur in a period of increased soil erosion and sedimentation into Littlejohns Creek. However, as required by the regulations, the erosion and sedimentation control system will be designed and stamped by a Professional Engineer registered in the State of California. In addition, both the RWQCB and CalRecycle will review and must approve the erosion control system design as part of issuance of WDRs and the SWFP, respectively. Implementation of these procedures would reduce the impact to a less-than-significant level.

4.1.8 Public Services and Utilities

Summary of Potential Impacts

An evaluation of potential impacts to Public Services and Utilities from the project is found in Section IV. I (Public Services and Utiliies) of the 2013 Final EIR.

The 2013 Final EIR describes as potentially significant the following impacts which, with the imposition of the mitigation measures proposed as part of the project and further proposed in the Final EIR, would reduce these potential impacts to a level less than significant: the extended length of operations due to the proposed landfill expansion could adversely affect the ability of (1) the San Joaquin County Sheriff's Department and California Highway Patrol to provide police protection, and (2 and 3) could adversely affect the Manteca-Lathrop Fire District's ability to provide fire protection; and (4) the proposed project could extend the time for leachate generation that, if

disposed at the City of Stockton Regional Wastewater Control Facility, could adversely affect plant operation).

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Public Health and Safety impacts from the project as identified in the Final 2013 EIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact I.1. The extended length of operations due to the proposed landfill expansion could adversely affect the ability of the San Joaquin County Sheriff's Department and California Highway Patrol to provide police protection.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

The Landfill would be managed in accordance with CCR Title 27 requirements, which include:

- *The landfill supervisor will be responsible for providing overall site security during normal working hours.*
- *All areas and facilities, other than those expressly designated for use by haulers, will be considered restricted areas.*
- *The landfill will have a perimeter barrier or topographic constraints designed to discourage unauthorized entry by persons or vehicles.*
- *Areas within the site where hazardous or suspected hazardous materials are stored will be properly identified and secured.*
- *The extended length of operations due to the proposed expanded landfill could adversely affect the Manteca-Lathrop Fire District's ability to provide fire protection. The entrance to the site will have a lockable gate, which will be locked outside of the usual operating hours.*
- *Salvaging and scavenging will be prohibited at the landfill, except for authorized materials recovery programs.*

Facts in Support of Finding:

The proposed project would expand the disposal area and extend the life of the existing landfill, but would not increase maximum permitted daily vehicle traffic or alter the nature of daily operations. Therefore, the proposed landfill expansion project is not anticipated to substantially change the existing level of demand for police services from the Sheriff's Department. There would be no substantial change in the existing level of traffic safety hazards

Given that the above listed measures have been in place for the existing Forward Landfill and that the level of required police protection services in the past has been low, continued implementation of these procedures would reduce police protection impacts to a less than significant level.

Potential Impact I.2. The extended length of operations due to the proposed expanded landfill could adversely affect the Manteca-Lathrop Fire District's ability to provide fire protection.

Finding:

Based on the analysis in the Final 2013 EIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *At the proposed expanded landfill, the project sponsor will continue to provide fire suppression equipment and procedures that are equivalent in effectiveness to those currently employed at the existing Forward Landfill, as described in the Site Health and Safety Program. The project sponsor will furnish information regarding proposed disposal operations and fire suppression measures at the proposed expanded landfill to the Lathrop-Manteca Fire District.*
- *Existing fire protection facilities will be maintained (see also Impact/Mitigation E.1).*

Facts in Support of Finding:

According to the Lathrop-Manteca Fire District, extending the current Forward Landfill fire suppression measures to the proposed expanded landfill would allow the District to provide adequate fire protection to the entire expanded landfill if approved. Therefore, implementation of these procedures would reduce fire protection impacts to a less than significant level.

Potential Impact I.3. The extended length of operations due to the proposed expanded landfill could adversely affect the Manteca-Lathrop Fire District's ability to provide emergency medical service.

Finding:

Based on the analysis in the Final 2013 EIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *The project sponsor will continue to apply, to the entire consolidated landfill, the safety procedures currently employed at the existing Forward Landfill and described in the Workplace Injury and Illness Prevention Plan. The project sponsor will furnish information regarding proposed disposal operations and safety procedures at the Austin Road Landfill, and the proposed consolidated landfill, to the Manteca-Lathrop Fire District.*
- *Monthly inspections of all facilities for safety will be conducted in accordance with the Safety Checklist prepared by the National Solid Waste Management Association (NSWMA) or other checklist of equivalent scope and detail.*

- *Safety meetings with employees will be conducted to disseminate safety information, in accordance with procedures described in the JTD.*
- *Personal protective gear will be provided for the safe handling of solid waste, as described in the JTD.*

Facts in Support of Finding:

According to the District, extending the current Forward Landfill safety procedures to the proposed expanded landfill would allow the District to provide adequate emergency medical service to the entire landfill. (Neely, 2011). Therefore, implementation of these procedures would reduce emergency medical service impacts to a less than significant level.

Potential Impact I.4. The proposed project could extend the time for leachate generation that, if disposed at the City of Stockton Regional Wastewater Control Facility, could adversely affect plant operation.

Finding:

Based on the analysis in the Final 2013 EIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *If leachate is delivered to the City of Stockton Regional Wastewater Control Facility, the project sponsor will provide for independently corroborated test results to the City to demonstrate the chemical composition of the leachate extracted from the proposed consolidated landfill project. Monitoring and testing of landfill-generated leachate will meet the requirements of the City of Stockton Wastewater Ordinance and the City Municipal Utilities Department.*
- *If leachate quality is not acceptable for disposal at the Regional Wastewater Control Facility, the project sponsor will either have the leachate collected and disposed off-site by a licensed Treatment and Disposal Facility, or will develop on-site leachate processing that will result in treated leachate that is acceptable for disposal at the wastewater treatment plant or acceptable to regulatory agencies for on-site use. The design and operation of any on-site leachate processing that is implemented will comply with all applicable laws and regulations.*

Facts in Support of Finding:

Leachate from the existing Forward Landfill has been accepted in the past, after analysis, for treatment at the City's wastewater treatment plant. The anticipated volume of leachate that would be generated at the proposed landfill would not have a substantial effect on the treatment plant's capacity. Leachate from the proposed expanded landfill with a composition similar to that generated in the past at the existing Forward Landfill would not adversely affect treatment plant operations. Implementation of these procedures would reduce wastewater impacts to a less than significant level.

4.1.9 Cultural Resources

Summary of Potential Impacts

An evaluation of potential impacts to Cultural Resources from the project is found in Section IV. J (Cultural Resources) of the 2013 Final EIR, and updated in Section H (Other CEQA Topics) of the Final SEIR. The 2013 Final EIR describes as potentially significant the following impacts which, with the imposition of the mitigation measure proposed in the Final 2013 FEIR, would reduce these potential impacts to a level less than significant: (1) potential impacts on buried cultural resources.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Public Health and Safety impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact J.1. Potential impacts on buried cultural resources.

Finding:

Based on the analysis in the Final 2013 EIR, this impact could be significant and the following mitigation measures recommended in the Final 2013 FEIR and updated in the Final SEIR with a modification to the mitigation measure, will mitigate this impact to less than significant. In 2014, representatives of the Yokuts tribe reviewed the previous Mitigation J.1 and recommended some minor changes to that measure. In addition, the 2018 Cultural Resources Evaluation further strengthened to the 2014 EIR's mitigation. This mitigation measure will reduce this potential impact to less than significant.

<u>Mitigation J.1</u>:

- *An archaeological monitor and a Native American monitor shall be retained to observe project-related ground disturbing activities in order to identify potentially buried resources. In the event that any of the archaeological site indicators described above are found, work should be halted within a zone established by the project archaeologist and Native American monitor until a plan for the evaluation of the resource under CEQA guidelines has been submitted to the appropriate permitting agency for approval.*

- *If any potential cultural resources are encountered during any ground disturbing activities, the following measures shall be implemented:*

  (a). If prehistoric archaeological resources are discovered during excavation and construction of the proposed project, the project sponsor along with a qualified archaeologist and Native American monitor shall suspend all work in the immediate vicinity of the find pending site investigation by a qualified archaeologist and a Native American monitor to assess the materials and determine their significance. If the qualified archaeologist and

Native American monitor determine that the find has the potential to be a historical resource per California Register of Historical Resources (CRHR) criteria, the project sponsor shall provide funding and time to allow recovering an archaeological sample or to implement avoidance measures. Work could continue at other locations while archaeological mitigation takes place.

(b) Evaluative testing, normally consisting of limited hand excavation to retrieve information and materials from the archaeological site, would be needed to demonstrate the eligibility of the resource to be included on the CRHR. If eligibility is established, then a plan for mitigation of impacts to the resource should be submitted to the San Joaquin County Community Development Department for approval before any construction related earthmoving activities are allowed inside the zone designated as archaeologically sensitive by the project archaeologist and Native American monitor. The plan must result in the extraction of sufficient volumes of non-redundant archaeological data so as to address important regional research considerations, must be performed by qualified professionals, and must result in detailed technical reports. Mitigation can take the form of additional data retrieval through hand excavation coupled with archaeological and Native American monitoring of all soils from the archaeologically sensitive zone. Monitoring is aimed at identifying, recording and/or removing archaeological materials and information for analysis, and also serves to limit damage to human remains (non-destructive analysis), a typical component of both seasonal and year-round villages in the valley.

(c) The project sponsor shall allow only a qualified archaeologist, and a Native American monitor to collect any prehistoric cultural resources (except human remains and burial associated grave goods) discovered on the site. During a pre-construction meeting the qualified archaeologist and Native American monitor would review with the construction crews the types of archaeological materials that could be present at the site, and that if any construction personnel observes any potential archaeological materials that they inform the archaeologist and Native American monitor of the location of the potential resource.

Should buried, unforeseen archaeological deposits be encountered during any project construction activity, work shall cease within a 50-foot radius of the discovery. The County shall ensure that a qualified professional archaeologist who meets the federal Secretary of the Interior's Standards in archaeology is retained to assess the significance of the find and recommend avoidance or treatment measures; work shall not resume until appropriate treatment has been completed. In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code Section 15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the City and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed.

(d) In the event that human remains or any associated funerary artifacts are discovered during construction, all work shall cease within 50 feet of the discovery and, in accordance with requirements of the California Environmental Quality Act (Public Resources Code

Section 15064.5[e]), Public Resources Code Section 5097.98, and the California Health and Safety Code (Section 7050.5), the San Joaquin County Sheriff/Coroner shall be contacted immediately. If the remains are deemed to be Native American, the Sheriff/Croner will notify the NAHC, which will in turn appoint and notify a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the County and a qualified archaeologist to develop a plan for the proper treatment of the human remains and associated funerary objects. Construction activities shall not resume until treatment has been completed. If recommendations are made and not accepted, during the mediation period, the Native American Heritage Commission shall mediate the issue and the Human Remains shall remain in the possession of the MLD.

Facts in Support of Finding:

Due to the onsite supervision by a qualified archaeologist during excavation and relocation of the South Branch, implementation of these mitigation measures would reduce cultural resources impacts to a less than significant level.

4.1.9 Visual Quality

Summary of Potential Impacts

An evaluation of potential impacts to Visual Quality from the project is found in Section IV.K (Visual Quality) of the Final EIR and updated in Section H (Other CEQA Topics) of the Final SEIR.

The Final SEIR describes as potentially significant the following impacts which, with the imposition of the mitigation measure proposed in the Final SEIR, would reduce these potential impacts to a level less than significant: (1) the proposed project would move ancillary facilities, which could generate additional sources of light.

The County finds that, pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in or incorporated into the project, which would mitigate or avoid potential Public Health and Safety impacts from the project as identified in the Final SEIR. The County further finds that the change or alteration in the project or the requirement to impose the mitigation as a condition of project approval is within the jurisdiction of the County to require, and that this mitigation is appropriate and feasible.

Potential Significant Impact K.5. The proposed project would move ancillary facilities, which could generate additional sources of light.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *The use of highly reflective surface materials in constructing structures on the site will be restricted.*
- *Exterior building materials will be painted or otherwise treated with muted earthtone colors.*

Screening vegetation had been planted along the Austin Road boundary of the site at the time this DEIR was prepared. This fulfills part (b) of Mitigation Measure K.4 in the 2002 Final EIR for the existing landfill (San Joaquin County, 2002), which is a condition of the permits for the existing landfill. The remainder of Mitigation Measure K.4 (reproduced in full below) is also a condition of the existing permits.

> *(a) Lighting for nighttime operations at the working face and other landfill facilities shall consist of sodium lamps with sharp cutoff angles and downward shielding and, to the extent feasible, shall be oriented in a direction that is not visible from off-site locations.*
>
> *(b) Dense screening vegetation shall be planted along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations.*
>
> *(c) For any future locations of the working face at which the screening vegetation in Mitigation Measure (b) above would not shield residents and motorists along Austin Road from night lighting, the project sponsor shall install temporary screens at the working face to block night lighting from residences and motorists along Austin Road.*

Facts in Support of Finding:

Because the measures listed above would shield lighting from nearby neighbors and motorists, implementation of these procedures and Mitigation Measure K.4 of the 2002 Final EIR would reduce the lighting impacts of the project to a less than significant level.

Impact K.6. The proposed project would extend the life of the landfill and the associated potential of debris and litter along access roads and at the site from transporting and handling of waste.

Finding:

Based on the analysis in the Final SEIR, this impact could be significant and the following mitigation measures proposed as part of the project will mitigate this impact to less than significant:

- *Daily inspection will be conducted to control litter on- and off-site, including the North and South Branches of the South Fork of Little Johns Creek, approach roads, entrance facilities, the transfer station/resource recovery facility, portable litter control fences, landfill perimeter fence, leachate impoundments, and storm water facilities including ditches, berms, and detention/sedimentation basins.*
- *All trucks will be tarped upon entering and exiting the facility. This policy will be strictly enforced. In accordance with San Joaquin County Ordinance No. 2887, adopted September 29, 1981 (Title 5 Health and Sanitation, Division 2. Solid Waste Collection and Disposal,*

Section 5-2502), tarps will be placed over open loads to avoid littering during transport of waste.

- *Management of the daily working fill face to the smallest practical area with immediate compaction to minimize the area and debris subject to the impacts of wind.*
- *If possible, on windy days the daily fill face tipper location would be selected for its protection to minimize effects of wind (i.e., tipper facing into wind adjacent to the leeward sidewall, or sheltered by completed fill deposits).*
- *Waste that is more susceptible to windblown distribution may, on windy days, be worked immediately into the fill face and covered with a layer of daily cover, as needed, or the waste may be excluded from the site.*
- *Portable skid-mounted litter fences may be provided for deployment downwind as close as practical to the working area, as needed.*
- *Semi-permanent fencing may be provided around the fill area as an additional barrier to the migration of litter off-site when litter has not been contained by the portable litter fences. (Examples of additional barriers include but not limited to, a four-foot minimum temporary construction fence and/or a ten-foot or higher semi-permanent fence.) The utilization will be continually evaluated and the fence will be relocated or added as needed.*
- *Permanent fencing (ten-foot high with an additional three-foot kicker) may be constructed with possibility of placement on an eight-foot high berm.*
- *On very windy days when all other procedures are not successful in controlling blowing litter, the operator may apply cover material more frequently or immediately to the incoming waste load. As a last resort due to the facility's obligation to provide continued disposal service to its clientele, the operator may consider closing down the facility to incoming waste.*
- *Buffer zones resulting from required facility setbacks along the site's perimeter will provide some protection of adjacent properties.*
- *As a final control measure, personnel will be dispatched, as needed or daily if conditions require, to collect any litter that has escaped the above control measures. The personnel will collect litter from the facility and the facility access, as well as adjoining property, provided that the property owner allows access. If additional assistance is required beyond site personnel, temporary service agencies will be contacted.*
- *If litter is distributed by the wind into trees and bushes on facility property or adjoining properties, portable lifts may be employed to retrieve the litter.*
- *Portable litter vacuums may be used to collect litter that has accumulated on litter fences.*
- *The main highway leading to the site will be routinely inspected for litter. If the highway has litter associated with the trucks entering the facility, then the litter will be picked up on a routine basis. All necessary safety precautions will be followed.*
- *Before and after photos of any litter removal effort may be taken in the event anyone questions the level of effort spent on litter collection.*
- *Forward will fund signage along Austin, Arch, and French Camp Roads stating that all disposal site traffic loads shall be covered in accordance with Vehicle Code 23115(a).*

- *A 24-hour Litter hotline will be established.*
- *A Litter Control Manager position will be created. The Litter Control Manager will be responsible for periodic inspection of loads for tarping, issuing notifications to vehicles for non-compliance with tarping procedures, and responding to and addressing litter complaints.*
- *Additional portable litter fencing will be purchased to enhance the existing portable litter fences used at the active face.*

Facts in Support of Finding:

The LEA oversees litter control at the facility and litter control is included in Forward's SWFP. Implementation of the procedures identified above and the periodic inspections by the LEA would reduce the debris and litter effects of the project to a less than significant level.

Potential Significant Impact K.7. Excavation, moving, and depositing soil for daily cover of the additional waste disposed under the proposed project could create visible dust and haze in the vicinity of the project.

Finding:

Based on the analysis in the Final 2013 EIR, this impact could be significant and the following mitigation measures recommended in the FEIR will mitigate this impact to less than significant:

- *Implement the fugitive dust control procedures and mitigation measures identified in Mitigation D.1.*

Facts in Support of Finding:

Fugitive dust control procedures included as part of the project are identified in Impact IV.D.1. Implementation of these procedures and mitigation measures would reduce the dust effects of the project to a less than significant level.

4.2 ENVIRONMENTAL EFFECTS THAT ARE CONSIDERED SIGNIFICANT AND UNAVOIDABLE IMPACTS

This section identifies the significant and unavoidable impacts that require a Statement of Overriding Considerations to be issued by the County, pursuant to Section 15093 of the CEQA Guidelines, if the project is approved. Based on the analysis contained in the EIR, the following impacts would be significant and unavoidable:

4.2.1 Traffic

Significant Unavoidable Impact B.7. Cumulative Conditions Intersection Impacts

Two cumulative scenarios are described in this section. The first cumulative condition is composed of existing traffic conditions plus traffic generated by previously approved projects likely to be constructed in the near term. This near-term condition is referred to as Existing Plus Approved Projects (EPAP) conditions. The second cumulative scenario is a long-term forecast of traffic conditions in the year 2035. Both conditions assume full operation of the existing Forward Landfill for the life of the existing permits. Both cumulative scenarios are described below.

Previously Approved Projects

County staff identified three nearby projects to include in the Approved Projects inventory for the transportation analysis conducted by Republic ITS for the previous 2013 EIR. After the 2013 EIR traffic study was prepared, one of the approved projects identified in the 2013 EIR, the California Health Care Facility, was completed. The other two approved projects identified in the 2013 EIR and not yet constructed are listed below.

- Archtown Industrial Project, at the southwest corner of Newcastle and Arch Roads.
- Arch Road Industrial Project, on the south side of Arch Road between Austin and Newcastle Roads, west of the Northern California Re-Entry Facility.

According to San Joaquin County and City of Stockton Planning staff, two additional approved but not yet built projects would likely add traffic to the study area: Norcal Logistic Center located north of Arch Road between Austin Road and Newcastle Road, and Tidewater Crossing located west of SR 99 and south of the Stockton Airport. Norcal Logistic Center is primarily a warehousing and distribution facility, while Tidewater Crossing is a mixed-use project with residential, industrial, school, and other uses. The previously approved Mariposa Lakes Development located north of the Mariposa Road and Austin Road intersection is not expected to be operational in the project lifetime, according to Stockton planning staff, and as such is not included in the previously approved projects (short-term cumulative) scenario. It is included in the year 2035 buildout scenario. Table IV.B-10 shows the estimated trips from these projects.

Table IV.B-10: Approved "Project" Trip Generation Estimates

	AM Peak-Hour Trips		PM Peak-Hour Trips	
	Enter	**Exit**	**Enter**	**Exit**
Norcal Logistic Center	690	439	502	879
Tidewater Crossing	1847	1514	1916	2481
Archtown Industrial	154	98	112	196
Arch Road Industrial	136	87	98	175

Note: The above trip estimates were obtained from the traffic studies prepared for the approved projects.

Existing-Plus-Approved-Projects Intersection Impacts

With the added traffic from the approved projects, traffic operations for the study area intersections were evaluated again with and without Forward Landfill traffic. Table IV.B-11 shows a comparison of study intersection operation with and without the Project under Short-term Conditions. As shown, only the intersection of East French Camp Road and Austin Road was calculated to operate at LOS D while all other study intersections would continue to operate at LOS C or better. The East French Camp Road and Austin Road intersection is controlled by 4-way stop signs. County traffic LOS policy considers LOS D acceptable conditions. Figure IV.B-5 shows the short-term peak-hour traffic with the Project. For the 2018 Expansion Project, this impact would be less than significant, and no mitigation measures are required.

Table IV.B-11: Short-term Conditions Study Intersection Traffic LOS Summary

Study Intersections and Driveways		Traffic Control	Peak-Hour	Existing + Approved Projects		Existing + Approved Projects + Project		Significant Impact
				Delays	LOS	Delays	LOS	
1	Austin Rd. & Forward Main Driveway	SSS	AM	9.3	A*	11.2	B*	No
			PM	9.7	A*	11.2	B*	No
2	Austin Rd. & Forward Secondary Driveway	SSS	AM	9.2	A*	9.7	A*	No
			PM	9.6	A*	10.1	B*	No
3	Austin Rd. & E. French Camp Rd.	AWS	AM	11.1	B	11.9	B	No
			PM	25.1	D	32.5	D	No
4	SR 99 NB On-off Ramps & E. French Camp Rd.	Signal	AM	23.7	C	23.7	C	No
			PM	21.3	C	23.4	C	No
5	SR 99 SB On-off Ramps & E. French Camp Rd.	Signal	AM	17.2	B	18.3	B	No
			PM	33.8	C	34.8	C	No
6	SR 99 Urban Interchange & Arch Rd.	Signal	AM	15.8	B	15.9	B	No
			PM	16.8	B	17.1	B	No
7	Arch Rd. & Kingsley Rd.	Signal	AM	27.6	C	34.3	C	No
			PM	29.5	C	30.9	C	No
8	SR 99 SB On-off Ramps & Mariposa Rd.	Signal	AM	8.8	A	9.5	A	No
			PM	9.7	A	9.7	A	No
9	SR 99 NB On-off Ramps & Mariposa Rd.	Signal	AM	9.0	A	9.2	A	No
			PM	5.0	A	5.0	A	No
10	Mariposa Rd. & Austin Rd.	Signal	AM	9.3	A	9.6	A	No
			PM	6.6	A	8.0	A	No
11	Arch Rd. & Austin Rd.	Signal	AM	12.4	B	13.5	B	No
			PM	19.3	B	21.3	C	No
12	Austin Rd. & Cal. Health Care Driveway	Signal	AM	3.3	A	3.3	A	No
			PM	5.6	A	6.2	A	No

Notes:
Traffics count conducted in mid- May 2018
SSS=Side-Street-Stop, AWS=All-Way-Stop, Signal=Traffic Signal Light
* For side-street-stop controlled intersections the delay and LOS reported in the above table represent the worst case (the side street approach controlled by the stop sign). The LOS for the intersection as a whole is A with delays less than 10 seconds.
Study intersections 1, 2, 3, 10, 11 and 12 are County intersections and the lowest acceptable condition is LOS D. Other study intersections are Caltrans intersections and the lowest acceptable LOS is D.

Year 2035 Cumulative Intersection Impacts

Study intersections LOS for the Cumulative 2035 traffic conditions were evaluated in the 2018 Traffic Impact Assessment with and without the Project to identify project impact for the cumulative condition scenario. The 2035 traffic volume forecasts for the study intersections were obtained from the traffic reports prepared for the Mariposa Lakes Development and the Tidewater Crossing Development, with results derived from the San Joaquin County Regional Traffic Model prepared by The San Joaquin County Association of Governments.

Table IV.B-12 shows study intersections LOS for cumulative conditions along with a comparison with existing and short-term conditions LOS. Figure IV.B-7 shows the anticipated traffic volumes for the 2035 traffic condition with the Project. As indicated, eight study intersections are projected to operate at unacceptable conditions without any improvements. However, a large number of roadway and signalization improvements are required as mitigation or otherwise included in the other approved projects. These are summarized in the 2018 TIA. Implementation of these improvements would reduce the significantly impacted intersections to the following four:

- SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
- SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
- SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
- SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

The proposed Project would add traffic to the unacceptable levels of service at these intersections. Although the project's contributions would be small, based on County policy they would be considered cumulatively considerable. The intersections were evaluated for mitigation potential, however there is not adequate land available at the required locations to further improve these intersections. Therefore, the Project's cumulative contribution would be considered a significant unavoidable impact.

In addition, the Project would generate a significant cumulative contribution to a significant impact at the following intersection.

- Arch Rd. & Austin Rd (AM and PM peak hours)

As shown on Table IV.B-12, implementation of Mitigation Measure B.7, below, would reduce this impact to a less-than-significant level.

Table IV.B-12: 2035 Cumulative Conditions Intersection Traffic LOS

Study Intersections and Driveways		Traffic Control	Peak Hour	2035 Cumulative Conditions		2035 Cumulative Conditions-Mitigated by Other Projects		2035 Cumulative +Project Conditions+ Mitigations by Other Projects		2035 Cumulative + Project + Project Mitigation	
				Delays	LOS	Delays	LOS	Delays	LOS	Delays	LOS
1	Austin Rd. & Forward Main Driveway	SSS	AM	9.9	A	NC	NC	12.6	B	NC	NC
			PM	11.3	B	NC	NC	13.9	B	NC	NC
2	Austin Rd. & Forward Secondary Driveway	SSS	AM	9.8	A	NC	NC	9.8	A	NC	NC
			PM	11.2	B	NC	NC	11.2	B	NC	NC
3	Austin Rd. & E. French Camp Rd.	AWS	AM	21.4	C	NC	NC	27.1	D	NC	NC
			PM	23.6	C	NC.	NC	29.3	D	NC	NC

4	SR 99 NB On-off Ramps & E. French Camp Rd.	Signal	AM	>100	F	10.2	B	15.1	B	NC	NC
			PM	>100	F	11.6	B	30.9	C	NC	NC
5	SR 99 SB On-off Ramps & E. French Camp Rd.	Signal	AM	>100	F	82.8	F	83.2	F	SU	NC
			PM	>100	F	>100	F	>100	F	SU	NC
6	SR 99 Urban Interchange & Arch Rd.	Signal	AM	>100	F	>100	F	>100	F	SU	NC
			PM	>100	F	>100	F	>100	F	SU	NC
7	Arch Rd. & Kingsley Rd.	Signal	AM	>100	F	35.4	D	35.9	D	NC	NC
			PM	>100	F	50.0	D	51.9	D	NC	NC
8	SR 99 SB On-off Ramps & Mariposa Rd.	Signal	AM	99.3	F	31.7	C	82.4	F	SU	NC
			PM	>100	F	84.5	F	84.8	F	SU	NC
9	SR 99 NB On-off Ramps & Mariposa Rd.	Signal	AM	30.2	C	33.5	C	47.6	D	NC	NC
			PM	>100	F	93.6	F	94.6	F	SU	NC
10	Mariposa Rd. & Austin Rd.	Signal	AM	>100	F	50.8	D	51.6	D	NC	NC
			PM	>100	F	39.6	D	41.3	D	NC	NC
11	Arch Rd. & Austin Rd.	Signal	AM	>100	F	24.4	C	39.0	D	14.5	B
			PM	>100	F	53.6	D	61.8	E	42.2	D
12	Austin Rd. & Cal. Health Care Driveway	Signal	AM	4.8	A	NC	NC	4.8	A	NC	NC
			PM	6.5	A	NC	NC	7.9	A	NC	NC

Notes: Traffic counts were conducted in mid-May, 2018, SSS=Side-Street-Stop. AWS=All-Way-Stop, Signal=Traffic Signal Light
* For side-street-stop controlled intersections, the delay and LOS reported in the above table represent the worst case (the side street approach controlled by the stop sign). The LOS for the intersection as a whole is A with delays less than 10 seconds.
NC = no change SU = Project's incremental contribution is cumulatively significant and unavoidable

Mitigation Measure B.7. (2013 EIR Mitigation Measure B.6). Improvements to Intersection 11, Arch Road/Austin Road, Southbound: The project shall contribute its fair share to the addition of one lane to provide one left-turn lane, two thru lanes, and one right- turn lane, as detailed in the TIA, Figures 12 and 13.

The proposed Project would add traffic to the unacceptable levels of service at these intersections.

SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

Mitigation Measure B.7 would reduce the significant cumulative impact at the Austin/Arch Roads intersection to a less-than-significant level.

Finding:

The County finds that, pursuant to Section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures identified in the Final SEIR for the four SR 99 intersections identified above.

Facts in Support of Finding:

Although the project's contributions would be small, based on County policy they would be considered cumulatively considerable. The intersections were evaluated for mitigation potential, however there is not adequate land available at the required locations to further improve these

intersections. Therefore, the Project's cumulative contribution at these intersections would be considered a significant unavoidable impact.

4.2.2 Noise

Significant Unavoidable Impact C.2. Truck Traffic Noise Impacts.

The 2013 EIR determined that noise level increases attributed to the project would exceed the significance criteria at residential properties along Austin Road south of Arch Road, Arch Road west of Austin Road, Austin Road north of the project driveway, Austin Road south of the project driveway and French Camp west of Austin Road. Each of these five roadway segments throughout the project area are where residences would be most affected by the project. The revised project would result in slightly decreased levels of traffic noise impacts compared to those described in the 2013 EIR (due to refinements in modeling and truck-size assumptions). In addition, traffic noise impacts would occur for a shorter duration because the revised landfill closure date is 2036 instead of 2039.

The 2018 modeled noise levels along the five roadway segments are presented in Table IV.C-4 in the Final SEIR. The ambient conditions along all these road segments currently exceed 67 dBA, and the increases of 2.6 to 3.9 dBA that would be attributable to the project (at maximum permitted daily trips) would be considered significant along all segments except French Camp Road west of Austin Road. Therefore, impacts associated with project-generated traffic noise increases would be significant.

The following measure is proposed as part of the project:

- *As recommended mitigation in the 2000 EIR and implemented by the applicant, the landowner or tenant at 9690 Austin Road shall be provided with the option of requesting a sound wall or noise barrier to reduce noise exposure both in the front yard and within the home. Additional noise monitoring and measures will be undertaken to demonstrate compliance with Development Title Section 9-1025.9 Transportation Noise Sources in the event noise complaints are received.*

This measure would reduce noise at the applicable house but would not mitigate noise impacts to other residences. Therefore, this impact would remain significant and unavoidable.
It should be noted that sound barriers are not feasible in the semi-rural areas that would be affected by truck traffic increases, because the barriers would be far removed from the activity areas of sensitive receptors and the sound barriers would generally be an unnatural barrier not only to noise but also to distant views now possible in these areas.

The following mitigation measure shall be imposed as a condition of project approval:

<u>Mitigation Measure C.2.</u> (Revises 2013 EIR Mitigation Measure C.2.)

> *(a) To reduce truck traffic noise impacts, the landfill operator shall annually notify truck drivers with a flyer that encourages drivers to maintain a steady speed on surface roads leading to the landfill. Drivers shall be instructed to eliminate unnecessary noise by staying within the speed limit and travelling at a steady speed, especially for trips during the morning peak hours.*

(b) For sections of Austin Road north of the landfill to Arch Road and south of the landfill to French Camp Road and Arch Road immediately west of Austin Road, residences within 100 feet of the centerline of Austin Road shall be provided with the option of requesting funds for installation of a sound barrier and/or additional insulation

Finding:

The County finds that, pursuant to Section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures identified in the Final SEIR for this potential impact.

Facts in Support of Finding:

Mitigation Measure C.2 could reduce the impact of increased truck noise to a level that would be less than significant, if residences request funding and implement the soundproofing measures. Other than Mitigation Measure C.2, no additional mitigations are available for this impact other than reducing project operations (Project Alternative 6). Because the soundproofing is by request and may not be implemented by all residences that qualify, this impact is considered significant and unavoidable

Significant Unavoidable Impact C.4. Cumulative Traffic Noise Impacts

In the 2013 FEIR, traffic noise levels were modeled for two cumulative scenarios, including a near-term scenario that considers projects in the study area and the 2035 scenario, which is based on the findings of the study of the proposed Mariposa Lakes development. The cumulative noise analysis in the 2013 FEIR found that the near-term and 2035 noise level increases attributed to increased traffic from other planned development and the increased project truck traffic would exceed the significance criteria along roadway segments on Austin Road, Arch Road and French Camp Road west of Austin Road.

Cumulative traffic noise level increases for the revised project are shown in Table IV.C-4 (columns identified as "Change Existing + Project + Cumulative from Existing"; "Change 2036 Cumulative NP from Existing NP"; and "Change 2036 + Project from Existing NP"). The table shows that the noise levels would increase in 2036 (compared to the existing levels) before addition of the noise from the increased project truck traffic. The additional truck traffic noise that would be associated with the proposed project would further increase traffic noise and contribute to a significant cumulative noise impact.

Finding:

The County finds that, pursuant to Section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures identified in the Final SEIR for this potential impact.

Facts in Support of Finding:

As stated in the 2013 FEIR Summary of Impacts and Mitigation Measures Table, no feasible mitigation measures are available to reduce the projects contribution to cumulative noise impacts. It should be noted that sound barriers are not feasible in the semi-rural areas that would be affected by cumulative traffic increases, because the barriers would be far removed from the activity areas of sensitive receptors and the sound barriers would generally be an unnatural barrier not only to noise but also to distant views now possible in these areas. Mitigation Measure C.2. would minimize noise increases (for residences that implement the soundproofing), however, no mitigations guarantee reducing all noise increases for this cumulative impact other than reducing project operations. Such a reduction would be a substantial change to the proposed project and therefore is addressed as a component of Alternative 2B (Reduced Size/Reduced Daily Operations Alternative) in Chapter V of the 2013 FEIR (see Alternative 6). Therefore, the project's noise increment is considered to be cumulatively considerable and the cumulative potential traffic noise impact is considered significant and unavoidable.

4.2.2 Air Quality

Summary of Significant and Unavoidable Impacts

Significant Unavoidable Impact D.5. The project would contribute to a cumulatively significant air quality impact in the project area.

According to the SJVAPCD, cumulative impacts should be assessed for ozone, PM_{10}, CO, and Toxic Air Contaminants (TAC). The San Joaquin Valley Air Basin (SJVAB) is nonattainment for both the NAAQS and CAAQS for ozone. The SJVAB is nonattainment for the CAAQS for PM_{10}. The nonattainment status of ozone and PM10 in the SJVAB is a result of past and present development within the SJVAB. Thus, the existing emissions of ozone and PM_{10} in the SJVAB have resulted in an existing significant cumulative impact.

Ozone impacts are the result of the cumulative emissions from numerous sources in the region and transport from outside the region. Ozone impacts are assessed based on the emissions of NO_x and VOC (ozone precursors). The project would have a less than significant impact on project-level ozone impacts (after mitigation). However, the residual emissions from the project (emissions after mitigation and emissions from the extended years of landfill operations, and increased daily acceptance rate [above existing actual emissions], as a result of the project) would contribute to overall ozone nonattainment in the region and would be considered a cumulatively considerable contribution to the existing significant cumulative impact in the SJVAB.

PM_{10} impacts are assessed by determining exposure to sensitive receptors near the project site from earth disturbing activities from the current project and any nearby projects that may occur at the same time. According to the SJVAPCD, if the level of earth disturbing activity may cause an adverse impact, enhanced dust control measures should be included to reduce the impact to less than significant levels. Thus, with Mitigation Measure D.2a. and D.2b., the project-level impacts of PM_{10} from the project would be less than significant. However, the project would contribute to the overall PM_{10} nonattainment within the region. Because the project would result in PM_{10} emissions

from traffic and operations every day (due to the extended years of landfill operations as a result of the project), the project's emissions would be considered a cumulatively considerable contribution to the existing significant cumulative impact in the SJVAB.

In recent years, CO measurements are well below AAQS due to the retirement of older polluting vehicles, less emissions from new vehicles, and improvements in fuels. As a result, no future violations of the CO standard are anticipated from the project and any cumulative project in the vicinity. The cumulative CO impact would be less than significant.

TAC emissions were found to be well below the SJVAPCD thresholds for incremental cancer risk and non-carcinogenic acute and chronic risks (see Section IV.E., Public Health and Safety, Impact E.8.). Thus, the project's increased TAC emissions would not result in a significant cumulative impact.

As determined in Impact D.4., cumulative GHG emissions would be a significant impact prior to mitigation.

Finding:

The County finds that, pursuant to Section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures identified in the Final SEIR for this cumulative impact.

Facts in Support of Finding;

The project would extend the lifetime of the landfill, adding years of emissions of ozone precursors and PM_{10} that would otherwise not occur without the project. Therefore, the project's emissions of ozone precursors and PM_{10} would be considered a cumulatively considerable contribution to the existing significant cumulative air quality impact in the SJVAB.

With the incorporation of Mitigation Measures D.1., D.2a., D.2b., and D.4., the individual project impacts would be less than significant. Nevertheless, as explained above, the cumulative impact to air quality (ozone precursors and PM_{10}) from the project would be significant.

4.2.3 Visual Quality

K.3. The increase in height and mass of the proposed project would disrupt the physical pattern and scale of the surrounding agricultural landscape.

The maximum elevation of refuse fill in the expansion area would be approximately 183 feet above Mean Sea Level (MSL). This would be higher than the existing highest point at the northern hill of the landfill (approximately 155 feet above MSL), but lower than the existing highest point at the southern hill of the landfill (approximately 194 feet). The proposed lateral expansion also would increase the horizontal footprint of, and add mass to, the existing landfill hills. The proposed lateral expansion would increase the disposal footprint from 355 to 546 acres, with much of this resulting from the conversion of existing agricultural landscapes to landfill hills. Most of the lateral expansion would be located on an agricultural parcel south and west of the existing permitted

landfill, but also would include approximately 11 acres along the existing alignment of the South Branch of the South Fork of Littlejohns Creek, and approximately 10 acres in the northeast corner of the site. As discussed above, the maximum elevation of refuse fill in the expansion areas would be approximately 183 feet above mean sea level (MSL), lower than the existing highest point at the landfill (approximately 194 feet). Thus, compared to the baseline of existing conditions, the expansion would be visible as a lower extension of the existing southern Forward Landfill hill, which would be a substantial change from the appearance of the existing flat agricultural landscape of the main expansion area. The proposed expansion would increase the apparent bulk of the hill, which would dominate local views of the landfill area.

After closure, the proposed expanded Forward Landfill would be vegetated open space. The top and side slopes of the final landfill would be hydroseeded with drought-tolerant grasses. This revegetation of the site would reduce visual impacts. However, the footprint and mass of the final landfill on the site would be substantially greater than those currently existing. The flat topography of the site vicinity allows unobstructed views of the landfill from Highway 99 (approximately one mile away), and other distant locations. The expanded landfill would be visually prominent over a greater area than the current landfills, and would substantially expand the visual intrusion of industrial uses into a predominantly agricultural area. This is a potentially significant impact.

A 6-foot high chain link fence has been constructed at the perimeter of the property to limit public access. Screening vegetation, including native shrubs and trees such as valley oak, has been planted along the Austin Road boundary of the site. This would, at maturity, partially or completely shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations, depending on the season (valley oaks lose their leaves in winter). The relocation of the South Branch of the South Fork of Littlejohns Creek to the eastern and southern boundaries of the landfill would include riparian habitat restoration/ creation that, when mature, would provide some screening along these boundaries of the site. In addition, the following measures are proposed as part of the project:

- *Native or drought-tolerant trees, shrubs, and grasses will be used in landscaping to conform to the natural vegetation of the area.*
- *Working faces of the landfill will be minimized to reduce their visibility.*
- *To the extent feasible, the top and side slopes of the landfill will be seeded with a mixture of native grasses and wildflowers that would visually blend with plants at the project site.*
- *Upon closure, the top and side slopes of the landfill will be planted with native grasses to the extent feasible.*

Implementation of these procedures would reduce the visual effects of the project; however, the increase in height and mass of the proposed project would remain a significant unavoidable impact.

<u>Mitigation Measure K.3</u>: Measures to reduce this impact (listed above) are available and are proposed as part of the project; however, even with implementation of the above measures it would not be possible to reduce this impact to a less-than-significant level.

Finding:

The County finds that, pursuant to Section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures identified in the Final SEIR for this impact.

Facts in Support of Finding:

As explained above, while there are measures available that will reduce the visual impact of the project which are proposed as part of the project, the increase in height and mass of the proposed project would remain a significant unavoidable impact.

5.0 FINDINGS REGARDING CONSIDERATIONS THAT MAKE ALTERNATIVES ANALYZED IN EIR INFEASIBLE (Guidelines Sections 15091 (a) and (b))

Section 15126(d) of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR describe a range of reasonable alternatives to the proposed project, or to the location of the project, which could feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant environmental effects of the project. Alternatives in the 2013 FEIR included a summary of the project objectives and described and evaluated the potential impacts of a full range of alternatives to the previously proposed project. That chapter also described alternatives considered but not studied further. Alternatives considered in the 2013 EIR included:

- Alternative 1: No Project Alternative
- Alternative 2A: Reduced Project Alternative
- Alternative 2B: Reduced-Size/Reduced Daily Operations Alternative
- Alternative 3: Expansion of North County Recycling Center and Sanitary Landfill

5.1 ALTERNATIVES CONSIDERED IN THIS SEIR

The currently proposed Expansion Project is another alternative to the project evaluated in the 2013 FEIR. As described in this SEIR, the 2018 Expansion Project would have reduced impacts compared with all of the previously considered alternatives other than the no-project alternative.

However, alternatives to the implementation of the 2018 Expansion Project are available. These involve implementing only one of the two fill sites proposed under the Expansion Project and/or not increasing the daily fill rates beyond current levels. The impacts of these three alternatives are compared with the currently proposed project below.

No Project

Under this alternative, no expansion of the Landfill would occur. No changes to the site would take place and the Landfill would be projected to then close by 2030. The existing Forward Landfill would continue to operate under existing permits. Mitigations incorporated into those existing permits would be implemented.

Under the No Project Alternative, the existing Forward Landfill would continue to receive both Class II waste (designated wastes) and Class III waste (municipal solid waste), up to the permitted rate of 8,668 tons/day and 620 trucks per day, until current capacity is reached at the anticipated closure date of 2030. The ultimate final height would be 210 feet above Mean Sea Level (MSL). Under the No Project Alternative, the total capacity of the landfill would be approximately 8.12 million cubic yards (mcy) of airspace less than under the proposed project.

Under the No Project Alternative, daily traffic volumes from landfill-related traffic would not change. However, the landfill would close in 2030 instead of 2036, the total amount of waste disposed would be less, and there would be fewer total vehicle trips over the life of the landfill. Thus, this alternative would generate up to 1,240 fewer trips per day than the proposed project from 2030 to 2036. Effects on operations at the study intersections would continue to 2021, in contrast to the proposed project, which would operate until 2036. The No Project Alternative assumes that the proposed Forward Landfill expansion project would not be implemented. In addition, upon the facility's closure in 2030, noise from the facility and trucks accessing the facility would cease, rather than continue through 2036. Similar to the proposed project, vehicles could increase from their current levels to the maximum limit of the current permit (620 trucks per day) and traffic-noise impacts could increase (up to the permitted maximum truck trips per day) until the closure in 2030. All construction noise from the project would be eliminated by the No Project Alternative.

The No Project Alternative would accommodate a smaller volume of refuse, and therefore, over the life of the landfill, generate less vehicle emissions and landfill gas than the proposed project. Thus, the No Project Alternative would have reduced air quality impacts (from both construction and operations) than the proposed project. The potential health risks on nearby sensitive receptors for the No Project Alternative would be lower than for the proposed project because of the lower volume of refuse, and thus, lower truck volumes and landfill gas generation.

Because this alternative would result in less waste disposal there would be less potential for surface water contamination and associated surface water impacts that relate to surface water contact with refuse. Potential leachate generation would be less at the existing Forward Landfill operations because the total volume of refuse disposed would be less than under the proposed expansion project. As with the proposed project, these impacts could be mitigated to a less than significant level. No change in the potential geologic hazards impacts such as seismic-related impacts would result from the No Project Alternative because the proposed expanded landfill would not create any more seismic risk as such. As with the proposed project, these impacts could be mitigated to a less than significant level.

The no-project alternative would not result in any significant impacts to biological resources. The no-project alternative would avoid any potential for take of Swainson's hawk, Chinook salmon, steelhead, giant garter snake, western pond turtle, or special-status bird species, as well as any potential for effects of increased night lighting and increased use of rodenticides on migrating birds and nocturnal wildlife. The existing project area does not currently provide significant values as wildlife habitat due to its active use as a cultivated agricultural field and the level of human activity in the project vicinity. Similarly, given the ephemeral nature the surface flows, lack of pools and riffles, and limited riparian habitat, the South Branch of the South Fork of Littlejohn's Creek provides limited values to wildlife. Impacts to the South Branch of the South Fork of Littlejohn's Creek resulting from the proposed project, although significant, are considered temporary as the

creek channel and riparian habitat would be reconstructed. In fact, the proposed project, with its realignment of the creek, would result in a net increase in the structural diversity of available riparian habitats on the site.

Therefore, the no-project alternative is not necessarily environmentally superior compared with the proposed project. Similar to the proposed project, the No Project Alternative would have less than significant impacts on police and fire protection and wastewater treatment. This alternative also would not affect schools, parks, other public facilities, or storm water drainage. The potential cultural impacts of this alternative, which could be mitigated to a less than significant level, could be reduced compared with those of the proposed project because the expansion areas would not be landfilled. The No Project Alternative would result in a smaller, less massive hill compared to the proposed project. Therefore, the visual impacts of this alternative would be less than the proposed project.

Alternative 2A: Reduced Project Alternative

The project Alternative 2A involved a 50% reduction in the horizontal expansion onto the Brocchini parcel for a reduced sized landfill expansion. This alternative is no longer considered a true alternative to the 2018 Expansion project because the Board of Supervisors did not support the use of the Brocchini parcel when they did not vote for an override of the Airport Land Use Commission finding that use of the Brocchini parcel was inconsistent with the Airport Land Use Plan.

Finding:

This alternative is judged to be infeasible because the Brocchini parcel lies within 10,000 feet of the end of the runway of the Stockton Metropolitan Airport and its development as a landfill would require a 4/5^{ths} vote of the County Board of Supervisors to override the finding of the Airport Land Use Commission that development of the Brocchini parcel as a landfill would be inconsistent with the County Airport Land Use plan. The County Board of Supervisors has declined to override the Airport Land Use Commission's determination.

Alternative 2B: Reduced-Size/Reduced Daily Operations Alternative

Because Alternative 2 A involved a 50% reduction in the horizontal expansion onto the Brocchini parcel for a reduced sized landfill expansion, this alternative is no longer considered a true alternative to the 2018 Expansion project because the Board of Supervisors did not support the use of the Brocchini parcel when they did not vote for an override of the Airport Land Use Commission finding that use of the Brocchini parcel was inconsistent with the Airport Land Use Plan.

Finding:

This alternative is judged to be infeasible because the Brocchini parcel lies within 10,000 feet of the end of the runway of the Stockton Metropolitan Airport and its development as a landfill would require a 4/5^{ths} vote of the County Board of Supervisors to override the finding of the Airport Land Use Commission that development of the Brocchini parcel as a landfill would be inconsistent with the County Airport Land Use plan. The County Board of Supervisors has declined to override the Airport Land Use Commission's determination.

Alternative 3: Expansion of North County Recycling Center and Sanitary Landfill

As described above, this alternative was envisioned as an alternative to the 2013 Expansion project that involved an expansion of the Forward Landfill onto the approximate 184-acre Brocchini parcel, which was agricultural land adjacent to the landfill. The North County Recycling Center and Sanitary Landfill is a Class III landfill with 185 acres of disposal area, owned and operated by San Joaquin County. It is located at 17900 East Harney Lane, an unincorporated County area about nine miles east of the City of Lodi and approximately 12 miles northeast of Stockton. It receives waste primarily from the North County area, and is open to collectors and to the general public.

Properties within a one-mile radius of NCRCSL include agricultural farmland on the east, pasture on the east and west, and field crops, deciduous fruits and nuts, and livestock on the east. The land on the west side of NCRCSL consists primarily of several 40-acre privately owned parcels. Vineyards are planted on lands to the east. Harney Lane Road borders the NCRCSL on the north side making contiguous expansion in this direction infeasible without relocating the road. If developed contiguously, there also would be overlap of Class II and Class III wastes on the south slope of the existing landfill. Adjacent to the landfill on the south is an approximately 320-acre parcel, currently used for grazing, that could potentially be developed as an expansion of the NCRCSL facility. The parcel is privately owned and is currently enrolled in a Farmland Security contract. In addition, due to the existence of wetlands on the site, only 200 of the 320 acres could be utilized.

The potential expansion is located in an area that is primarily agricultural, with a small number of residences. This land is classified as non-prime agricultural land in the Resource Element of the San Joaquin County General Plan. This alternative would not be consistent with General Plan Resource Element policies on preservation of agricultural land. A portion of this property is currently enrolled in the Williamson Act and designated as Farmland Security Zone properties. (Department of Conservation 2005) Unlike the proposed project, this alternative would not be located near the Stockton Metropolitan Airport, and would have no potential impacts of bird hazards and night lighting on an airport. However, both of these impacts could be reduced to a less than significant level by mitigation measures identified for the proposed project.

Under this alternative, transportation impacts in the vicinity of the Forward Landfill would cease at the time of closure in 2030, and would then commence in the vicinity of the North County Recycling Center and Sanitary Landfill. There are potential traffic impacts on the local roads given the substantial increase in traffic volume that would result from this alternative

The Off-Site Alternative (NCRCSL) would reduce the duration (number of years of) of truck traffic on Austin Road and all project-related noise at Forward Landfill compared with the proposed project. However, landfill access under this alternative would entail a substantially longer haul distance, and would expose a greater number of rural residences to truck noise impacts. Isolated rural residences near the North County site may be equally exposed to heavy equipment noise (from construction and operations) potentially exceeding County standards. Traffic-related noise could result in increases to roadside residences that would be significant and unavoidable.

Local landfill air-quality impacts occur from emissions released during the landfill process and from subsequent decay of the buried refuse. A very substantial portion of the impact, however, occurs on

a regional scale from hauling the refuse. An optimum landfill that minimizes air quality impacts is one that has a low surrounding population density, and is located close to the collection area to reduce truck exhaust emissions from on-road hauling. The Alternative would likely generate greater emissions due to its greater distance from urban areas. The increased haul distance would generate greater volumes of NOx and greenhouse gas emissions from diesel trucks. Both the location and the magnitude of truck hauling emissions for this alternative have the potential for more severe air quality impact than for the proposed project. This alternative would also contribute to cumulatively significant air quality impacts.

Several special-status species such as the valley elderberry longhorn beetle, California tiger salamander, burrowing owl, Swainson's hawk, and vernal pool fairy shrimp occur in the vicinity of the Off-Site Alternative site (CNDDB August 31, 2001). The California tiger salamander was detected within a mile of the site in 1973. The site reportedly supports grazed nonnative grasslands and wetlands. Grazed grasslands provide habitat for a number of species including burrowing owls, Swainson's hawks, and California tiger salamander. In addition, grazed nonnative grasslands provide foraging and nesting habitat for many other insects, reptiles, birds and mammals, and have the potential to support rare and endangered botanical species. Although this alternative would attempt to avoid affecting wetlands, their presence on the site means that disturbance is possible. In this case, fish species, the giant garter snake, and rare vernal pool species could be negatively impacted. Loss of grasslands near drainage ditches or streams could potentially impact basking habitat for the giant garter snake.

Swainson's hawk nests were recorded to the south, southwest and west of the expansion site. Grasslands within the expansion site could be expected to provide Swainson's hawk foraging habitat. Large trees within the expansion area and the vicinity could potentially support nesting Swainson's hawks and many other bird species. Expansion of the landfill could result in disturbance of nearby nesting birds. Both California tiger salamander and burrowing owl could be expected to occur within the expansion site. If elderberry bushes are lost due to this Alternative, the valley elderberry longhorn beetle could be adversely affected.

This Alternative would result in the loss of approximately 200 acres of grazed grasslands rather than the non-agricultural “in fill” land involved with the proposed project. Overall, biological impacts from this Alternative site are anticipated to be of greater magnitude than those associated with the proposed project.

Finding: This alternative is judged to be infeasible and not an environmentally superior alternative to the proposed 2018 Expansion project because it would involve the conversion of agricultural land in a rural area of the County that is a substantial distance from major highways and transportation routes. This alternative would potentially create greater impacts than the proposed project in terms of its inconsistency with the General Plan; the requirement of cancellation of a William Act contract on the agricultural land and conversion of Farmland Security Zone property; and potentially greater traffic, truck safety, noise, and biological resource impacts. If improvements are required to the access route to the NCRCSL, these improvements could also be growth inducing in this rural area of the County.

Alternative 4: Northern Fill Area Only

Under this Alternative, the Northern fill area would be filled with about 3.3 million cubic yards of wastes, about 41% of that proposed under the 2018 Expansion Project. This alternative would include the existing permitted maximum truck trips (620/day) through the life of the project, with a closure date of 2033 rather than 2036 for the proposed project. Because the South site would not be developed as a landfill under this alternative, no creek relocation or new access driveway/bridge would be required, and the existing composting facility would remain.

As with the Proposed Project and Alternative 2A, the expanded landfill would accept both Class II (designated) and Class III (municipal) waste. Other than the changes described above, this alternative would have the same facilities and operating procedures (other than hours of operation) as the proposed project.

Impacts of this alternative would be similar to those of the proposed project except for the following:

- No creek-relocation-related biological or water quality impacts would occur, however long-term ecological benefits of creek relocation would not be realized.
- Noise, air quality, traffic, and odors impacts would be reduced by three years, from 2036 to 2033.
- Health risk impacts associated with the expansion would be slightly reduced.
- There would be no visual impacts associated with the Southern fill area.

Finding:

The Northern Fill Area Alternative is judged to be infeasible because it would not achieve the project objectives of creating 8.12 million cubic yards of new disposal space needed to assist the County's and Regional's needs for, and compliance with State laws requiring, the proper handling and disposal of Class II waste and disaster debris, and would not provide the longer term support needed for industrial and commercial growth in the County and for recycling and beneficial reuse of solid waste, all as envisioned in the project objectives.

Alternative 5: Southern Fill Area Only

Under this Alternative, the Southern fill area would be filled with about 4.8 million cubic yards of wastes, about 59% of that proposed under the proposed project. This alternative would include the existing permitted maximum truck trips (620/day) through the life of the project, with a closure date of 2034 rather than 2036 for the proposed project. Because the North site would not be developed as a landfill under this alternative, the existing open space on that site would remain.
As with the Proposed Project and Alternative 2A, the expanded landfill would accept both Class II (designated) and Class III (municipal) waste. Other than the changes described above, this alternative would have the same facilities and operating procedures (other than hours of operation) as the proposed project.

Impacts of this alternative would be similar to those of the proposed project except for the following:

- Noise, air quality, traffic, and odors impacts would be reduced by two years, from 2036 to 2034.
- Health risk impacts associated with the expansion would be slightly reduced.
- There would be no visual impacts associated with the Northern fill area.

Finding: The Southern Fill Area Alternative is judged to be infeasible because it would not achieve the project objectives of creating 8.12 million cubic yards of new disposal space needed to assist the County's and Regional's needs for, and compliance with State laws requiring, the proper handling and disposal of Class II waste and disaster debris, and would not provide the longer term support needed for industrial and commercial growth in the County and for recycling and beneficial reuse of solid waste, all as envisioned in the project objectives.

Alternative 6: Reduced Daily Operations Alternative

This Alternative is similar to the 2018 Expansion Project but would include the existing permitted maximum truck trips (620/day) only through the end of the current permit (estimated at 2030). After that time, instead of using the maximum of 620 trucks/day, this alternative would revert to the existing 233 truck trips /day. At projected fill rates, this alternative would have a closure date of approximately 2038 or approximately 2 years later than the 2036 closure date of the expansion project.

Impacts of this alternative would be similar to those of the proposed project except for the following:

- Noise, air quality, traffic, health risk, and odors impacts would not be increased in intensity over existing conditions, but existing landfill traffic, noise, and air pollutant emissions would extend to 2038 instead of ending in 2036.

Finding:

The Reduced Daily Operations Alternative is rejected as infeasible because it would not meet the project objectives by not allowing for the efficient use of the proposed project landfill working area by restricting truck traffic to 233 truck trips per day, which would not enable the Landfill to meet the anticipated and potentially unanticipated growing needs of the County and Region for the proper handling and disposal of Class II waste and disaster debris. Further, this alternative would cause existing landfill traffic, noise, and air pollutant emissions to likely extend to 2038 instead of ending in 2036, so that these impacts would be slightly lessened but spread over a longer period of time.

5.2 OTHER ALTERNATIVES CONSIDERED AND REJECTED IN THIS SEIR

An additional alternative, an out-of-county landfill, was requested to be considered in comments on the 2014 Draft SEIR. This alternative was rejected from further consideration in this SEIR as discussed below.

Out-of-County Alternative

The County does not have jurisdiction to approve any landfill outside of its jurisdiction, therefore such an alternative would be not be feasible for the lead agency to implement, which is one of CEQA's criteria for considering alternatives (per CEQA Guidelines Section 15126.6(f)(1). In addition, even though much of the refuse accepted at Forward comes from outside of the County, given the distribution of Class II landfills in the region, the Forward facility may be the nearest facility for much of the out-of-county waste that it accepts. As described in the Project Description, Forward's waste origin for the period 1995-2017 was as follows:[2]

San Joaquin County	31%
Sacramento County (adjacent)	33%
Stanislaus County (adjacent)	12%
Alameda County (adjacent)	5%
Santa Clara County	4%
El Dorado County	3%
All Other Counties Combined	12%

With a relocated, out of county landfill, some wastes would be hauled for shorter distances while other wastes would be hauled farther. Therefore, depending on its location, an out-of-county alternative may not significantly reduce traffic, noise, or air quality impacts compared with the proposed project. In addition, establishing a new landfill, with all related construction and operational activities, typically requires more land and has greater environmental impacts than infilling an existing landfill.

Other Off-Site Alternatives

The 2013 EIR and the SEIR did not consider specific off-site landfill sites (other than the possible expansion of two County landfills) in detail because a new landfill would, by necessity, require a substantially larger land area and substantially greater ancillary facilities than would an expansion of an existing landfill. Specifically, a new landfill would require an operations center, weighing station, truck washing facilities, new access and internal circulation roads, a new composting facility, new materials sorting areas, new equipment storage areas, new cover excavation areas, new buffer areas, possible new utility extensions/expansions, possible traffic control infrastructure, and other new facilities essential to constructing and operating a landfill that already exist at existing landfills.

The need for space for these facilities and buffers increase the space requirements for a new landfill, which is why the 2013 EIR assumed the need a 500-acre minimum parcel size, even if the actual landfill footprint were similar to the proposed project expansion footprint. For example, the Keller Canyon Landfill in Contra Costa County, permitted in 1992, had a disposal area of 244 acres but a total site area of 2628 acres (CalRecycle, Solid Waste Facility Permit, Keller Canyon Landfill, Permit #07-AA-0032). San Joaquin County's Foothill Landfill has a disposal acreage of 750 acres and a total site area of 800 acres (CalRecycle, Solid Waste Facility Permit, Foothill Sanitary Landfill, Permit #39-AA-0004). The North County Landfill does have a smaller area, 320 acres with a 185-acre waste footprint (CalRecycle, Solid Waste Facility Permit, North County Landfill,

[2] Sangeeta Lewis, Prinicpal, Lewis Engineering, *Letter report to Kevin Basso, General Manager, Forward, Inc., Subject: Forward, Inc. Landfill, Infill Development Project; Summary of Tonnage/Site Life/Waste Origin/Waste Type,* August 22, 2018.

Permit #39-AA-0022). However, recently permitted new landfills tend to be larger: for example, the Mesquite Regional Landfill in Southern California has a landfill footprint of 2,290 acres out of a total site area of 4,250 acres (CalRecycle, Solid Waste Facility Permit, Mesquite Regional Landfill, Permit #13-AA-0026). It is recognized that each specific site has particular buffer needs and lands not suitable for placement of a landfill, however all have needs for ancillary facilities.

A landfill expansion also would be able to use existing facilities compared to the need for new ones at a new landfill. This need for new ancillary facilities could affect financial feasibility of a new landfill under a certain size. For all of these reasons, the 2013 EIR and the SEIR focused on reduced-project alternatives and expansions of other existing landfills in the County over a new off-site landfill. No members of the public have identified any potential alternative off-site locations for consideration in comments on the EIR or SEIR. The SEIR's range of alternatives is reasonable.

5.3. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (Sections 15126.6(d), 15126.6(e)) require that an environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then one of the other remaining alternatives is to be designated as the environmentally superior alternative.

The 2013 FEIR concluded that Alternative 2B would be the Environmentally Superior Alternative. The proposed 2018 Expansion Project would, however, be environmentally superior to Alternative 2B, with a much more limited footprint and shorter extension of landfill life. The proposed project, as detailed in this SEIR, would reduce most impacts compared with the previously proposed Project. Alternatives 4 and 5 would further reduce impacts compared to the proposed project. Of these, Alternative 4 would have the lowest impact, because it would not result in creek relocation impacts and would not affect the visual quality of the Southern parcel as viewed from Austin Road.

It should be noted that the Forward Inc. landfill is the only landfill in San Joaquin County that accepts Class II wastes, and under Alternatives 4 and 5, those wastes would need to be disposed of at out-of-county landfills upon the closure of the Forward Landfill earlier than under the proposed project or Alternative 6. This could result in greater regional air pollutant emissions than with the project, as well as unknown impacts of expanding landfills elsewhere. Because Alternative 4 would not affect the composting facility or require creek realignment, it is considered the environmentally superior alternative. However, long-term benefits of the restored creek and additional Class 2 landfill capacity would not be gained under that alternative.

6.0 GROWTH INDUCEMENT AND CUMULATIVE IMPACTS

Growth Inducement.

The CEQA Guidelines (Section 15125(g)) require that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the Guidelines as "the way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works projects which remove obstacles to population growth." The environmental effects of induced growth are secondary, or indirect, impacts of the proposed action. Secondary effects of growth include increased demand on community services and infrastructure, increased traffic and noise, and conversion of agricultural and open space to development use. Inducement of disorderly growth that is inconsistent with local land use plans generally causes significant environmental impacts. If the proposed landfill expansion would stimulate growth into the area, then the project would have growth inducing impacts.

Finding: The 2018 Expansion Project, which would be smaller than the previously proposed expansion, involves neither the extension of public service, such as water or sewer lines, nor the creation of a land use that would stimulate adjacent development. If anything, the construction and extended operation period of the 2018 Expansion Project would, because of the resulting environmental impacts, make the project area potentially less desirable for development. The 2018 Expansion Project is an "in fill" project that is not likely to have growth-inducing impacts because it would not require the development of new roads or community infrastructure to support the continued operation of an existing facility. For these reasons, the project is judged to not have the potential growth inducing impacts.

Cumulative Impacts:

The potential significant cumulative impacts of the project are identified and discussed in the following sections of these Findings, which are summarized below:

<u>Significant Unavoidable Impact B.7. Cumulative Conditions Intersection Impacts</u>

The proposed Project would add traffic to the unacceptable levels of service at these intersections.

- SR 99 SB On-off Ramps & E. French Camp Rd., (AM and PM peak hours)
- SR 99 Urban Interchange & Arch Rd. (AM and PM peak hours)
- SR 99 SB On-off Ramps & Mariposa Rd. (AM and PM peak hours)
- SR 99 NB On-off Ramps & Mariposa Rd. (PM peak hour)

Although the project's contributions would be small, based on County policy they would be considered cumulatively considerable. The intersections were evaluated for mitigation potential, however there is not adequate land available at the required locations to further improve these intersections. Therefore, the Project's cumulative contribution would be considered a significant unavoidable impact.

In addition, the Project would generate a significant cumulative contribution to a significant impact at the following intersection.

- Arch Rd. & Austin Rd (AM and PM peak hours)

Significant Unavoidable Impact C.4. Cumulative Traffic Noise Impacts

The cumulative noise analysis in the 2013 FEIR found that the near-term and 2035 noise level increases attributed to increased traffic from other planned development and the increased project truck traffic would exceed the significance criteria along roadway segments on Austin Road, Arch Road and French Camp Road west of Austin Road.

Cumulative traffic noise level increases for the revised project are shown in Table IV.C-4 (columns identified as "Change Existing + Project + Cumulative from Existing"; "Change 2036 Cumulative NP from Existing NP"; and "Change 2036 + Project from Existing NP"). The table shows that the noise levels would increase in 2036 (compared to the existing levels) before addition of the noise from the increased project truck traffic. The additional truck traffic noise that would be associated with the proposed project would further increase traffic noise and contribute to a significant cumulative noise impact.

As stated in the 2013 FEIR Summary of Impacts and Mitigation Measures Table, no feasible mitigation measures are available to reduce the projects contribution to cumulative noise impacts. It should be noted that sound barriers are not feasible in the semi-rural areas that would be affected by cumulative traffic increases, because the barriers would be far removed from the activity areas of sensitive receptors and the sound barriers would generally be an unnatural barrier not only to noise but also to distant views now possible in these areas. Mitigation Measure C.2. would minimize noise increases (for residences that implement the soundproofing), however, no mitigations guarantee reducing all noise increases for this cumulative impact other than reducing project operations. Therefore, the project's noise increment is considered to be cumulatively considerable and the cumulative potential traffic noise impact is considered significant and unavoidable.

Significant Unavoidable Impact D.5. The project would contribute to a cumulatively significant air quality impact in the project area.

According to the SJVAPCD, cumulative impacts should be assessed for ozone, PM_{10}, CO, and Toxic Air Contaminants (TAC). The San Joaquin Valley Air Basin (SJVAB) is nonattainment for both the NAAQS and CAAQS for ozone. The SJVAB is nonattainment for the CAAQS for PM_{10}. The nonattainment status of ozone and PM10 in the SJVAB is a result of past and present development within the SJVAB. Thus, the existing emissions of ozone and PM_{10} in the SJVAB have resulted in an existing significant cumulative impact.

Ozone impacts are the result of the cumulative emissions from numerous sources in the region and transport from outside the region. Ozone impacts are assessed based on the emissions of NO_x and VOC (ozone precursors). The project would have a less than significant impact on project-level ozone impacts (after mitigation). However, the residual emissions from the project (emissions after mitigation and emissions from the extended years of landfill operations, and increased daily acceptance rate [above existing actual emissions], as a result of the project) would contribute to overall ozone nonattainment in the region and would be considered a cumulatively considerable contribution to the existing significant cumulative impact in the SJVAB.

PM_{10} impacts are assessed by determining exposure to sensitive receptors near the project site from earth disturbing activities from the current project and any nearby projects that may occur at the same time. According to the SJVAPCD, if the level of earth disturbing activity may cause an adverse impact, enhanced dust control measures should be included to reduce the impact to less than significant levels. Thus, with Mitigation Measure D.2a. and D.2b., the project-level impacts of PM_{10} from the project would be less than significant. However, the project would contribute to the overall PM_{10} nonattainment within the region. Because the project would result in PM_{10} emissions from traffic and operations every day (due to the extended years of landfill operations as a result of the project), the project's emissions would be considered a cumulatively considerable contribution to the existing significant cumulative impact in the SJVAB.

Facts in Support of Finding;

The project would extend the lifetime of the landfill, adding years of emissions of ozone precursors and PM_{10} that would otherwise not occur without the project. Therefore, the project's emissions of ozone precursors and PM_{10} would be considered a cumulatively considerable contribution to the existing significant cumulative air quality impact in the SJVAB.

With the incorporation of Mitigation Measures D.1., D.2a., D.2b., and D.4., the individual project impacts would be less than significant. Nevertheless, as explained above, the cumulative impact to air quality (ozone precursors and PM_{10}) from the project would be significant.

7.0 FINDINGS WITH RESPECT TO MITIGATION OF SIGNIFICANT IMPACTS AND ADOPTION OF MITIGATION MONITORING AND REPORTING PROGRAM (Guidelines Section 15091 (d))

Based on the entire record before the County, and having considered the significant and unavoidable impacts of the project, the County hereby determines that all feasible mitigation within the responsibility and jurisdiction of the County has been adopted to reduce or avoid the potentially significant impacts identified in the SEIR, and that no additional feasible mitigation is available to further reduce significant impacts. The feasible mitigation measures are discussed in Section 4.1 and are set forth in the MMRP.

CEQA provides that each public agency shall mitigate or avoid the significant effects on the environment of projects it approves or carries out whenever it is feasible to do so (Public Resources Code 21001.1[b]). In mitigating or avoiding a significant effect of a project on the environment, a public agency may exercise only those express or implied powers provided by law other than under CEQA (Public Resources Code 21004). The County has specific powers to mitigate effects that occur within its jurisdiction, namely within the County.

Section 21081.6 of the Public Resources Code requires the County to adopt a monitoring or compliance program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The MMRP for the 2018 Expansion Project is hereby adopted by the County because it fulfills the CEQA mitigation monitoring requirements, as follows: (1) the MMRP is designed to ensure compliance with the changes in the project and mitigation measures imposed on the project during project implementation; and (2) measures to mitigate or avoid significant effects on the environment are fully enforceable through conditions of approval, permit conditions, agreements or other measures.

8.0 STATEMENT OF OVERRIDING CONSIDERATIONS (Guidelines Section 15093)

STATEMENT OF OVERRIDING CONSIDERATIONS

CEQA requires decision makers to balance, as applicable, the economic, legal, social, technological or other benefits of a project against its significant and unavoidable environmental impacts when determining whether to approve the project. If the specific economic, legal, social, technological or other benefits of the project outweigh the significant and unavoidable impacts, those impacts may be considered "acceptable" (CEQA Guidelines Section 15093(a)). When significant impacts are not avoided or lessened, CEQA requires the agency to state, in writing, the specific reasons for considering a project acceptable. Those reasons must be based on substantial evidence in the Final EIR or elsewhere in the administrative record (CEQA Guidelines Section 15093(b)).

In accordance with the requirements of CEQA and the CEQA Guidelines, the County finds that the mitigation measures identified in the Final EIR (where applicable) and Final SEIR, and the Mitigation Monitoring and Reporting Program, when implemented, will avoid or substantially lessen virtually all of the significant impacts identified in the Final EIR and the 2018 Expansion Project Final SEIR for the 2018 Expansion project. However, certain significant impacts of the project are unavoidable even after incorporation of all feasible mitigation measures. The project would result in the following significant and unavoidable impacts: (1) cumulative traffic impacts at four intersections; (2) cumulative traffic noise impacts for some residents along roadway segments on Austin Road, Arch Road and French Camp Road west of Austin Road; and (3) cumulative air quality impacts due to the emission of ozone precursors and PM_{10} that would be considered a cumulatively considerable contribution to the existing significant cumulative air quality impact in the San Joaquin Valley Air Basin. The Final EIR (where applicable) and Final SEIR provides detailed information regarding these impacts.

The County finds that all feasible mitigation measures identified in the Final EIR (where applicable) and Final SEIR within the purview of the County will be implemented with the project, and that the remaining significant and unavoidable impacts are outweighed and are found to be acceptable due to the following specific overriding economic, legal, social, technological and other benefits based upon the facts set forth above in the Findings of Fact, the Final EIR, the Final SEIR and the administrative record. Each of the following specific overriding economic, legal, social, technological or other benefits (overriding considerations) set forth below constitutes a separate and independent ground for finding that the project benefits outweigh its significant adverse environmental impacts and, alone, is an adequate overriding consideration associated with the project that outweighs the project's significant and unavoidable impacts and are, therefore, considered acceptable, warranting approval of the project.

As stated in the Project Objectives, the project will:

- Provide cost-effective, long term stable disposal capacity for municipal solid waste for existing and anticipated users of the Forward Landfill facility for that portion of the waste stream that cannot be recycled or diverted from landfilling, by the continued design, construction and operation of a centrally located and accessible,

state-of-the art, environmentally-safe sanitary landfill which meets or exceeds local, State and Federal standards.

- Support industrial and commercial growth in the County and surrounding communities by providing regional, centrally located and accessible Class II disposal capacity that no other currently permitted landfill in the County can provide. Class II disposal facilities provide for the environmentally safe containment of items such as contaminated soils, various types of construction and demolition wastes, ashes, and other materials that are critical to continued industrial and commercial growth and development in the County and surrounding regions.
- Assist the County and surrounding regions in meeting the current California state legislative mandate for recycling or beneficially reusing the non-hazardous waste stream and thus diverting from landfilling, and also assist these communities in meeting increased state recycling and beneficial reuse goals, by providing for the recycling and beneficial reuse of several categories of waste materials received at the facility, such as green waste, wood waste, construction and demolition debris, shredder wastes, shredded tires, and other consumer recyclables.
- Provide land area and facilities for an efficient, combined resource recovery and disposal operation to reduce or eliminate the need for solid waste to be delivered to multiple locations to achieve processing, beneficial re-use, and residuals disposal and thereby reduce green-house gas impacts and capital expenditures for improvements to roadways and associated infrastructure, such as transfer stations.
- Provide disposal capacity for disaster related debris, such as from fires, floods, and earthquakes.

In addition to the benefits from the project achieving these Project Objectives, the project will provide several collateral benefits for the County. These are:

Public Health and Safety and Integrated Solid Waste Management

As described in the San Joaquin County Code of Ordinances, Title 5 Health and Sanitation, Division 2 Solid Waste Collection and Disposal, "it is in the public interest and in the interest of all the residents of this County that the accumulation, preparation, storage, collection, transportation, and disposal of refuse and waste matter of all kinds, in the unincorporated area of the County, be handled in such a manner as to prohibit the harborage and breeding of rodents and insects, to reduce pollution of the air by burning, fermentation, or putrefaction of such material, to prevent the spread of disease, to reduce the hazards of fire, and to prevent unsightliness which results in the depreciation of property values, and the prevention of the comfortable enjoyment of life." The Forward Landfill assists the County in achieving this objective by the following means:

- The Forward landfill is included in the County's Integrated Waste Management Plan and is an integral part of the County's overall solid waste management program. The landfill assists the County in meeting state law requirements that the County be able to identify specific permitted long-term disposal capacity for its municipal solid waste disposal needs. The Forward landfill assists the County in demonstrating that it has adequate future disposal capacity as required in Public Resources Code §41701.

- In accordance with the County's solid waste Ordinance 5-2921, Forward pays an AB939 compliance fee to the County Solid Waste Division of $2.00 for each ton of waste it accepts. These fees totaled $1,755,929 for 2018. These fees are used to fund recycling programs throughout San Joaquin County. Without the out-of-county waste and the associated fees paid to the County by Forward, the County would have less resources to comply with the County's State mandated recycling programs. Forward also pays the County an AB 1220 fee of $1.99 per ton for each ton of waste it accepts. These fees totaled $1,747,149 for 2018. The monies are used for integrated waste management. Finally, Forward also pays a road maintenance fee of $.13 per ton, which totaled $114,135 for 2018. Total fees paid to the County for 2018 were $3,617,213.

- Extension of landfill operations under the project will allow the existing green waste processing and composting facility at Forward to continue to operate for a longer period of time, so the extension of landfill operations under the project will indirectly support this beneficial recycling program. The Forward green waste processing and composting facility supports the County's compliance with AB 32 (the California Global Warming Solutions Act of 2006), AB 1826 (which mandates the collection and processing of commercially generated green waste and food waste to keep these materials out of landfills) and SB 1383 (the Short-Lived Climate Pollutants Reduction Strategy). SB 1383 targets to achieve a 50 percent reduction in the statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. The continued operation of the Forward landfill composting facility is an important contributor to the County's overall effort to comply with this state legislation.
- The extension of existing municipal waste disposal arrangements with cost-effective pricing with the cities of Stockton and Lathrop;
- The continuation of disposal of municipal waste from the City of Manteca with cost-effective pricing, per agreement between the landfill and the County.

<u>Agriculture and Roads</u>

- Land discharge of cannery wastes as a soil amendment is considered a reuse of materials, which aids the County in achieving State-mandated waste diversion goals. It is also an essential service for the $13 billion dollar cannery industry in San Joaquin and Stanislaus Counties, which employs an estimated 4,000 seasonal employees for up to six months during the yearly canning season. The existing cannery waste land application program at Forward will continue to operate and be economically viable during the extension of disposal operations, so the extension of landfill operations under the project will indirectly support this beneficial program. The cannery waste receiving facility at Forward is critical to the continued operation of the canning industry in the County. The cannery industry relies on the low-cost disposal of cannery waste provided at the Forward landfill facility.

- As noted in the San Joaquin Farm Bureau newsletter (Illegal Dumping on the Rise, Craig Anderson, September 2018) illegal dumping often occurs in or near agricultural fields. While the County Solid Waste Department is the primary responder for illegal dumping situations, Forward aids as requested, particularly for nearby agricultural properties.

- Forward has paid the County a traffic impact mitigation fee for continued maintenance of the roads in proximity to the site. While these roads are trafficked by Forward, maintenance of the roads also benefits the general public and agricultural vehicles. In addition, with project approval, Forward will contribute its fair share to the addition of one lane to provide one left-turn lane, two thru lanes, and one right-turn lane, at the Arch Road Austin Road intersection.

Airport

- The bird abatement program at Forward will continue throughout the duration of extended disposal operations. This program has also proven effective in deterring flocking birds such as seagulls from entering the airspace around the Stockton Metropolitan Airport, thereby enhancing airport safety.
- The location of the landfill discourages residential development projects. Residential development is not encouraged near airports due to potential noise impacts.

Community and Economic Benefit

- The Forward Landfill started as a local, family owned business and continues to maintain strong roots in the Stockton area. Forward supports the local community by being a member of the Chamber of Commerce and sponsoring several local organizations such as Hispanic Chamber of Commerce, the San Joaquin Partnership, the San Joaquin Business Council, the Manteca Boys and Girls Club, the Manteca Unified School District Scholarship Program, the Stockton / Lathrop Spring Cleanup, and the Falcon Program, plus numerous other events and businesses that are given support when requested.
- In addition to the previously mentioned fees paid to the County and encouraging economic development by providing an environmentally safe disposal facility for municipal solid waste and commercial and industrial wastes, Forward and its affiliates provide employment for over 135 employees in the Stockton area and hire local businesses to provide maintenance, engineering, janitorial, and other services.

ATTACHMENT "B"

APPENDIX H: MITIGATION MONITORING AND REPORTING PROGRAM: 2018 FORWARD LANDFILL EXPANSION PROJECT
COUNTY FILE #PA-0800105 USE PERMIT #: PA-1800090
SCH #2008052024

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1.0 INTRODUCTION

BACKGROUND

CEQA requires all public agencies to adopt monitoring or reporting programs when they approve projects subject to Environmental Impact Reports (EIRs) or Negative Declarations that identify significant impacts. The reporting or monitoring program must be adopted when a public agency makes its findings under the California Environmental Quality act (CEQA) so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance during project implementation to mitigate or avoid significant environmental effects.

This MMRP lists mitigation measures identified in this EIR, as well as five previous EIRs prepared for the project site. The previous EIRs are:

1. County of San Joaquin, Community Development Department, *Final Environmental Impact Report for the Forward, Inc. Landfill Use Permit Modifications*, County No. ER-92-4, SCH No. 92032013, prepared by LSA Associates, Inc., March 2, 1993 (identified as "Forward 1993" below).

2. City of Stockton, Public Works Department, *Final Environmental Impact Report: City of Stockton Austin Road Landfill Expansion Project,* SCH No. 90020178, prepared by Environmental Science Associates, June 1994 (identified as "Austin 1994" below).

3. County of San Joaquin, Community Development Department, *Final Supplemental Environmental Impact Report: Austin Road Landfill Expansion Project*, SCH No. 90020718, prepared by Grassetti Environmental Consulting, January 2000 (identified as "Austin 2000" below).

4. County of San Joaquin, Community Development Department, *Final Environmental Impact Report: Consolidated Forward Landfill Project,* SCH No. 2001052081, prepared by Grassetti Environmental Consulting, December 2002 (identified as "Forward 2002" below).

5. County of San Joaquin, Community Development Department, *Final Environmental Impact Report: Forward Landfill Expansion Project,* SCH No. 2008052024, prepared by Grassetti Environmental Consulting, May 2013 (identified as "Forward 2013" below).

This MMRP includes both a complete listing of all required mitigation measures, and a table describing who is responsible for monitoring the implementation of those measures, and how that monitoring shall be implemented.

Mitigation measures are grouped by the impact categories used in this EIR, and numbered sequentially. Mitigation Measures from this EIR are printed in normal font, and identified as either "Measures Proposed as Part of the Project" or "Identified in This EIR", with the original Mitigation Measure numbers from this EIR following in (parentheses). Mitigation measures from the previous EIRs are printed in italics and identified by their source (Forward 1993, Austin 1994, Austin 2000, Forward 2002, or Forward 2013, as defined above), followed by the Mitigation Measure number from the relevant EIR. Because some impacts in this EIR and previous EIRs do not require mitigation measures, the original mitigation measure numbers are not sequential.

In some cases, mitigation measures from two or more of the previous EIRs that are substantially similar in content, or have been updated without otherwise being changed, have been combined. These mitigation measures are identified as "similar" and/or "updated". Mitigation measures from the four previous EIRs that have been replaced by equivalent measures in this EIR, or have already been implemented, or are no longer applicable are excluded from the list below.

This Monitoring and Reporting Program includes a Checklist designed to facilitate verification and monitoring of project compliance with required mitigation measures. This document will be used by San Joaquin County to verify inclusion of required project design features and ongoing mitigation measures. The Checklist serves as a summary so that public officials, the Applicant, and the public can easily determine which measures have been complied with, and to what extent.

2.0 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

The Mitigation Monitoring and Reporting Program Checklist is proposed for monitoring the implementation of the mitigation measures contained in the Environmental Impact Report and previous EIRs on the project site (see Attachment 1 for a listing of mitigation measures). The County should implement the monitoring program as follows:

- The Director of the San Joaquin County Community Development Department, or designee, should be responsible for coordination of the monitoring program including the monitoring checklist (Attachment 2).

- Each responsible individual or agency will be responsible for determining whether the mitigation measures contained within the checklist have been complied with. Once all mitigation measures have been complied with, the responsible individual or agency should submit a Verification Report Form (Attachment 3), or similar form, and a completed checklist to the Director.

- If a responsible individual or agency determines that a non-compliance has occurred, a written notice should be delivered to the Director describing the non-compliance and requiring compliance within a specified period of time.

3.0 IMPLEMENTATION

The Director of the San Joaquin County Community Development Department would be responsible for overall implementation and administration of the Mitigation Monitoring and Reporting Program Checklist for the proposed Consolidated Forward Landfill Project.

Duties of the Director would include the following:

- Plan checks.
- Coordinate with applicable agencies that have mitigation monitoring and reporting responsibilities.
- Assure follow-up and response to citizens' complaints.
- Develop forms and checklists for reporting. A sample Verification Report Form is included (Attachment 3).
- Maintain the Mitigation Monitoring and Reporting Program Checklist or other suitable mitigation compliance summary.

ATTACHMENT 1: MITIGATION MEASURES

1. (A.2) Identified in 2013 FEIR (Not applicable to this project):

~~To mitigate the conversion of agricultural land to industrial use, the project sponsor shall acquire a farmland conservation easement. A farmland conservation easement is an encumbrance sometimes including a transfer of usage rights (easement) which creates a legally enforceable land preservation agreement between a landowner and a government agency (municipality, county, state, federal) or a qualified land protection organization (often called a "land trust"), for the purposes of conservation. It restricts real estate development, commercial and industrial uses, and certain other activities on the property. The purpose of this mitigation strategy is to ensure that the acquisition of the agricultural mitigation land achieves maximum benefits for the residents of San Joaquin County and other public or private land conservation programs. The number of acres of agricultural mitigation land shall be equal to the number of acres that would be changed to a non-agricultural use by the proposed project [a 1:1 ratio]. Final approval of the proposed project shall be contingent upon the execution of the legal instrument to provide agricultural mitigation land or approval and payment of an in-lieu fee. An in-lieu fee would allow the County to purchase an agricultural conservation easement to mitigate the project's conversion of agricultural land to industrial use. Submission of the required legal instrument or payment of the in-lieu fee shall occur at the time of permit issuance.~~

2. Proposed as Part of the Project:

Forward would continue its procedure of submitting a Notice of Proposed Construction or Alteration (FAA Form 7460-1) at least 45 days prior to operation of any equipment that could temporarily intrude into the imaginary surface, as required by the Federal Aviation Administration (FAA) for all proposed construction or alterations that could intrude into the airport imaginary surface.

3. Proposed as Part of the Project:

Existing measures to discourage birds from the landfill will be continued. Surface area of ponds will be limited to the extent feasible.

The project sponsor will continue to monitor bird populations. If follow-up surveys show an increase in bird populations, the project sponsor will increase mitigation measures such as covering the fill areas as soon as possible and using noise-makers and other measures as necessary to discourage birds from the site, until bird population levels return to the level found in pre-project surveys. Use of noise-makers would be limited to daylight hours.

As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018 (Basso, 2018a).

As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not pose a bird hazard to aircraft in the operating record and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018 (Basso, 2018d, 2018e).

The project sponsor shall comply with the requirements applicable to existing landfills contained in Federal Aviation Administration (FAA) Advisory Circulars 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports*, and 150/5200-34A, *Construction or Establishment of Landfills Near Public Airports.* Requirements in Advisory Circular 150/5200-33B applicable to the proposed project include notification of the FAA and airport, and a demonstration that the landfill is designed and operated so it does not pose a bird hazard to aircraft. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018 (Basso, 2018a. The effectiveness of the gull control program at the existing landfill in avoiding bird hazards to aircraft is discussed under IV.A Surrounding and Nearby Land Uses, and the demonstration that the site will not pose a bird hazard to aircraft was placed in the operating record by letter on July 6, 2018. Advisory Circular 150/5200-34A applies only to establishment of new landfills near airports, and does not apply to the proposed project.

The project sponsor will abide by any additional reasonable and feasible measures designated by the Stockton Metropolitan Airport or the FAA to mitigate bird population impacts that could be caused by the proposed project.

4. (A.4) Identified in this SEIR:

The project sponsor shall implement an annual gull control program as described in Rolph A. Davis, Ph.D. LGL Limited Environmental Research Associates*,* Demonstration of the Effectiveness of the Bird Control Program at the Forward Landfill, Manteca, California – 2016-2017, August 7, 2017.

The gull control program shall include monitoring of gulls feeding at or using the landfill, as described below.

- Monitoring shall be conducted by an independent third-party firm or individual with experience in the field of bird hazards to aircraft safety.

- The third-party monitoring shall consist of a minimum of six site visits, each lasting four hours, every month from October through May. To the extent possible, the site visits shall be announced in advance. During each month:
  - two of the visits shall begin at dawn,
  - two shall occur during mid-day,
  - one shall occur late in the afternoon covering the period after the falconer has finished for the day, and
  - one shall occur on Sunday when the landfill is closed to ensure that gulls are not accessing the site when staff are absent.

- Site visits in addition to the minimum of six monthly visits described above shall be made if necessary to verify the criteria for failure described below.

- The results of the monitoring shall be documented in an annual report.

- Landfill staff shall participate in monitoring so that action can be taken as soon as a potential problem is identified.

The control program shall be considered to be failing and will require upgrading if any of the following situations occur:

- Gulls land at the active disposal area, begin to feed, and are able to feed for 10 minutes or more, on two or more occasions during a week.

- Flocks of gulls begin loafing on other parts of the landfill and are not scared away by the control program within 30 minutes, on more than two occasions during a week.

- Gulls begin to circle over the landfill, including adjacent creek areas, and are not removed by the falcons. If this behavior continues over a period of one week, then it indicates that the birds are likely getting food at the landfill.

The above triggers do not specify a minimum number of gulls because if one or two gulls are present, they will soon attract other gulls and numbers will build up. Therefore, it is essential to deter the first gulls.

In the event that the bird control measures proposed as part of the project, described above, in combination with the gull control program described in this mitigation measure, are found to be ineffective in reducing the numbers of flocking birds by the criteria described above, the project sponsor shall implement one or more of the following:

1. The falconry program shall be intensified to ensure that there are no gaps in coverage and that additional falcons are available for those days when it may be necessary to fly the falcons often.

2. The operator shall introduce a more comprehensive pyrotechnic-based control program to supplement the falconry program. Many landfills successfully control gulls using only a pyrotechnic-based program. The pyrotechnics program shall provide coverage when the falcons were not on site during the week and on weekends. The pyrotechnics program shall also cover areas remote from the active area to remove loafing gulls.

3. With the exception of removal of prey base for predatory birds and mammals, and actions involving special-status bird species, the operator shall implement the recommendations for vegetation, wildlife, and water management contained in *Odell, Russel W., Senior Wildlife Biologist, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services California,* Letter to John Funderburg, Principal Planner, San Joaquin County Community Development Department, *August 29, 2011*.

The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already filed this form for the proposed project (Lewis, pers. com, August 8, 2018). This form shall be re-filed if there is any change to proposed landfill grade.

The project sponsor shall undertake regular, ongoing communication with Airport staff regarding the airports Wildlife Hazard Assessment and wildlife management program, to address changes in wildlife presence or behavior observed at the landfill.

5. Proposed as Part of the Project:

Aircraft warning lights will be installed at the landfill as and when required by the FAA.

As required by California Code of Regulation Title 27, Section 20270(b), Airport Safety, the owner or operators proposing to site new solid waste facility units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. Forward notified the Stockton Metropolitan Airport and FAA by letter on July 6, 2018. (Basso, 2018a, 2018b).

As required by California Code of Regulation Title 27, Section 20270(c), Airport Safety, the owner or operator must place the demonstration in the operating record that the site will not cause a bird hazard to aircraft, and notify the Department of Resources Recycling and Recovery (CalRecycle) that it has been placed in the operating record. Forward notified CalRecycle that the demonstration was placed in the operating record by letter on July 6, 2018. (Basso, 2018d, Basso, 2018e).

The use of highly reflective surface materials in constructing structures on the site will be prohibited.

6. (A.5) Identified in this SEIR:

The project sponsor shall include downward shielding of new landfill lighting, and shall abide by any additional reasonable and feasible measures that are designated by the Federal Aviation Administration (FAA) and Stockton Metropolitan Airport to mitigate lighting impacts that could be caused by the proposed project, including reducing or eliminating lighting during foggy conditions and concurrently suspending operations that depend on the lighting.

The Conditions of Approval for the proposed project shall include the requirement that the project sponsor, prior to construction, file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration. Forward has already filed this form for the proposed project (Lewis, pers. com, August 8, 2018). This form shall be re-filed if there is any change to proposed landfill grade.

B. TRANSPORTATION AND CIRCULATION

7. Identified in this SEIR (B.7). (Revises 2013 EIR Mitigation Measure B.7).

Improvements to Intersection 11, Arch Road/Austin Road, Southbound: The project shall contribute its fair share to the addition of one lane to provide one left-turn lane, two thru lanes, and one right- turn lane, as detailed in the 2018 SEIR TIA, Figures 12 and 13.

***8. Forward 2013* (B.7):**

~~The applicant shall commence traffic monitoring of the Austin/Mariposa and Austin/French Camp intersections on five-year intervals until such time as the first phase of development in the Mariposa Lakes development is constructed and occupied. After such time monitoring shall occur on an annual basis. Monitoring reports shall be prepared by a Professional Engineer as described in the County traffic impact guidelines. Monitoring shall include manual peak period turning movement counts with a summary report showing intersection LOS results. Design of the improvements shall occur when the intersection LOS drops to LOS D or worse, and construction shall occur within one year from issuance of permits for the Project. The schedules for each intersection shall be independent. Monitoring shall continue until the mitigation measures are implemented or 2035, whichever comes first. If~~

~~either intersection remains at LOS C or better until 2035, the implementation of the mitigation at that intersection shall no longer be required.~~ (Superseded by 2018 SEIR Mitigation, above.).

~~9. Forward 2002 (B.2)~~

~~The project applicant shall contribute $3,768.84 toward the signal installation at Austin Road/Arch Road. The applicant shall contribute $4,696.67 to the signal installation at the intersection of Austin Road/French Camp Road.~~

~~10. Forward 2002 (B.6)~~

~~The applicant shall contribute a fair share to the required addition of a second eastbound-to-southbound left turn lane to Austin Road that would be required to improve intersection operations to acceptable levels. The improvement includes the addition of a second eastbound-to-southbound left turn lane at the intersection of Mariposa Road/ Austin Road. With the recommended improvement, the intersection would operate at LOS B with a V/C ratio of 0.686 during the PM peak hour.~~

C. NOISE

11. Proposed as Part of the Project:

As recommended mitigation in the 2000 EIR and implemented by the applicant the landowner or tenant at 9690 Austin Road shall be provided with the option of requesting a sound wall or noise barrier to reduce noise exposure both in the front yard and within the home. Additional noise monitoring and measures will be undertaken to demonstrate compliance with Development Title Section 9-1025.9 Transportation Noise Sources in the event noise complaints are received.

12. (C.2) Identified in 2013 EIR and revised in this SEIR:

(a) To reduce truck traffic noise impacts, the landfill operator shall annually notify truck drives with a flyer that encourages drivers to maintain a steady speed on surface roads leading to the landfill. Drivers should be instructed to eliminate unnecessary noise by staying within the speed limit and travelling at a steady speed, especially for trips during the morning peak hours.

(b) For sections of Austin Road north of the landfill to Arch Road and south of the landfill to French Camp Road and Arch Road immediately west of Austin Road, residences within 100 feet of the centerline of Austin Road shall be provided with the option of requesting funds for installation of a sound barrier and/or additional insulation

Mitigation Measure C.2 could reduce the impact of increased truck noise to a level that would be less than significant, if residences request funding and implement the soundproofing measures. Other than Mitigation Measure C.2, no additional mitigations are available for this impact other than reducing project operations (Project Alternative 6). Reducing project operations would be a substantial change to the proposed project and therefore is addressed as a component of Alternative 2B (Reduced Size/Reduced Daily Operations Alternative) in Chapter V of the 2013 EIR.

13. (C.3) Identified in 2013 EIR and revised in this SEIR:

The Landfill shall implement one of the following two options to mitigate this potentially significant impact:

(a) Heavy equipment operations shall not be conducted within 1,500 feet of any occupied residence after 10 p.m. and before 7 a.m.; or

(b) Equipment operations within 1,500 feet of any residence after 10 p.m. or before 7 a.m. shall be fully shielded from the direct line of sight to the residence by an earthen berm whose crown elevation exceeds the elevation of the top of the exhaust stack.

14. Austin 1994 (H1.a, H1.b), Austin 2000 (H1.a, H1.b) Forward 1993 (E1) Forward 1993 (E2) Forward 1993 (E3)

The proposed project must conform to the San Joaquin County Noise Standards contained in the County's General Plan. The project sponsor shall be required to demonstrate compliance with this performance standard. Work areas could be limited, work times close to the residence could be rescheduled, noise barriers such as earth berms could be designed, and noise monitoring shall be undertaken to demonstrate compliance in the event noise complaints are received.

Use quietest equipment available.

Additionally, if project-related noise levels measured at the property line of any residential use would exceed an hourly average of 45 dBa during the nighttime or 55 dBa during the daytime, then setbacks and a limitation on hours of operations shall be mandatory.

D. AIR QUALITY/ODORS

15. (D.1) Identified in 2013 EIR and Modified in this SEIR:

The applicant shall comply with Regulation VIII and implement the following control measures during construction:

• The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes 40 acres or more of disturbed surface area.

Specific relevant control measures for construction, excavation, extraction, and other earthmoving activities required by the SJVAPCD include:

• All disturbed areas, including storage piles not actively utilized for construction purposes, shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover or vegetative ground cover in order to comply with Regulation VIII's 20 percent opacity limitation.

• All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.

• All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.

• When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

• All operations shall limit or expeditiously remove the accumulation of mud or dirt from

adjacent public streets at the end of each workday. However, the use of blower devices is expressly forbidden, and the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.

• Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized utilizing sufficient water or chemical stabilizer/suppressant.

• Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Enhanced and additional control measures for construction emissions of PM_{10} shall be implemented where feasible. These measures include:

• Limit traffic speeds on unpaved roads to 15 mph.

• Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

• Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

• Install wind breaks at windward side(s) of construction areas.

• Suspend excavation and grading activity when winds exceed 20 mph.

• Limit area subject to excavation, grading, and other construction activity at any one time.

The applicant shall implement feasible control measures during construction to mitigate NO_x and VOC emissions from construction equipment, which may include:

Require construction equipment used at the site to be equipped with catalysts/particulate traps, or Tier 4 diesel engines to reduce particulate emissions. Currently, CARB has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, contractors must show that the diesel-fueled construction equipment used is equipped with particulate filters, catalysts, or Tier 4 diesel engines, or prove why it is infeasible.

• Use alternative fueled construction equipment, where feasible.

• Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

• Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.

• Require that all diesel engines be shut off when not in use on the premises to reduce the emissions from idling.

16. Identified in This EIR (Revises 2013 FEIR Mitigation Measure D.2a.):

The applicant shall comply with SJVAPCD Rule 2201 regulations to offset stationary source emissions of VOCs, CO, NO_x, SO_x, PM_{10} and $PM_{2.5}$ in excess of the applicable SJVAPCD

emissions offset threshold levels. The applicant shall also comply with Regulation VIII and implement Mitigation Measure D.1. for operational activities such as earthmoving.

17. Identified in this SEIR. (Revises 2013 FEIR Mitigation Measure D.2b.):

On-site Particulate Emission AAQS Mitigation

The applicant shall implement one or a combination of the following options to reduce air quality emissions below the thresholds.

(a) Limit future truck trips to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" PM_{10} or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

Regional Criteria Pollutants Emission Mitigation

The applicant shall implement one or a combination of the following options to reduce air quality emissions below the thresholds.

(a) Limit future truck trips to an annual average of 233 truck trips per day. Currently the baseline truck trips are 233 trips per day and the permitted limit is 640 trips per day. Maintaining the annual average truck trips at 233 trips per day would mean there are no "increased" NOx, PM_{10}, or $PM_{2.5}$ emissions because of the Project. The proposed Project would not increase truck traffic at the landfill over the current baseline.

(b) The applicant shall enter into a Voluntary Emissions Reduction Agreement (VERA) with SJVAPCD to mitigate the Project's mobile related emissions for NOx, PM_{10}, and $PM_{2.5}$ to a less than significant impact utilizing either the SJVAPCD's "net-zero" mitigation approach or pollutant by pollutant mitigation approach. The applicant shall execute such VERA prior to the start of the proposed Project (i.e., landfill expansion up to 8.1 mcy of new capacity).

The VERA shall use the estimated emissions above the significance thresholds in this SEIR as the emissions to be reduced, unless operator provides and San Joaquin County approves a revised air quality impact assessment (in consultation with SJVAPCD) for the Project's future actual emissions (annually) instead of the estimated emissions in this SEIR.

(c) Pave roads as necessary to reduce PM emissions above current actual baseline levels from the operation of the new 8.1 MCY waste disposal area (from increased truck trips).

18. (D.3) Identified in this SEIR (Same as 2013 FEIR Mitigation Measure D.4):

To reduce the potential for any off-site odor impacts, the Odor Control Management Plan for Forward Landfill shall be modified to include daily management odor inspections when cannery wastes are being processed.

19. (D.4) Identified in This EIR (Same as 2013 EIR Mitigation Measure D.5):

Both the Flare and LFG engine options would require feasible mitigation measures to further reduce GHG emissions. The landfill operators shall annually report GHG emissions from the project (actual operations) to the County and SJVAPCD. If the increase in operational operations exceeds 25,000 metric tons of CO2e per year by 2020, then the landfill shall purchase verifiable GHG credits to offset the remaining project emissions above 25,000 metric tons of CO2e per year. Additional GHG credits shall be purchased every five years if the annual reports indicate that the credits have not offset excess GHG emissions (those above 25,000 metric tons of CO2e per year) in the prior five years.

20. Forward 2002 (D.2)

The project sponsor shall mitigate any significant future ROG increase by developing gas wells within the Forward Landfill sufficient to achieve a recovery rate of 100-200 cfm of LFG from the Forward Landfill. The gas wells shall be integrated into the consolidated facility collection/ disposal system. To maintain a less-than-significant ROG increase from existing conditions, a small LFG collection system shall be installed at the currently uncontrolled Forward Landfill before the total increased fugitive LFG release rate from all sources reaches 150 cfm (equivalent to 10 tons of ROG per year).

21. Austin 1994 (G5.b), Austin 2000 (G5.b)

Excessively odorous wastes shall be mixed immediately with other landfill wastes, depending on their nature and source. If diluting the intensity of odor is not sufficient, then the operator shall immediately cover offensive materials as soon as they arrive at the landfill.

22. Austin 1994 (G5.c), Austin 2000 (G5.c)

The operator shall ensure that loading, unloading, and material handling activities are carried out efficiently and without delays to avoid excessive odors.

23. Forward 1993 (D1)

Use water trucks and/or sprinkler systems to apply water a minimum of twice daily to roadways and active faces of asbestos disposal areas to minimize airborne dust leaving the site. It is recognized that a balance must be struck between maintaining sufficient moisture for dust control and applying too much moisture such that the generation of excess leachate occurs. The conditions of the active faces of a landfill, as well as the leachate generated, must be monitored and professional judgment utilized at all times to keep these two factors in balance.

24. Forward 1993 (D2)

Portions of the site that either have been filled to the extent allowed or are not expected to be worked for extended periods (six months or longer) shall be sown with fast-germinating drought-tolerant grass seed and watered until a cover of vegetation is established.

25. Austin 1994 (G1.b), Austin 2000 (G1.b) (similar)

The project sponsor shall seek to minimize the extent of area exposed to wind erosion. Exposed surfaces, including stockpiles, shall be vegetated to the extent possible.

26. Austin 1994 (G1.c), Austin 2000 (G1.c)

Plan and phase construction and closure operations such that they do not take place simultaneously on dry windy days. Schedule particularly dusty activities on separate days.

27. Austin 1994 (G1.d), Austin 2000 (G1.d)

Design the site filling plan to facilitate screening of the active face from the prevailing winds, whenever possible, to minimize the amount of windblown dust released from the working face.

28. Austin 1994 (G1.e), Austin 2000 (G1.e)

Haul trucks carrying easily airborne material shall be covered during transport and sprayed with water prior to dumping if it is shown that this would reduce dust emissions during off-loading activities within the landfill.

29. Austin 1994 (G1.f), Austin 2000 (G1.f)

The landfill operator shall restrict truck and equipment travel over loose, uncompacted, unpaved surfaces.

30. Forward 1993 (D5)

A particulate/meteorological monitoring station should be installed on the project site, preferably near the site boundary with one of the closer residential receptors. This monitoring station should be operational for a minimum of six months during the dry season (April-September) before landfill activity begins to intensify as a result of project implementation. Data should be collected daily during this baseline period, during the

landfill's transition to higher project-related activity levels, and during the landfill's peak operational phases thereafter. If the more intensive landfill operations are found to increment the 24-hour average of the annual average PM10 levels by more than 5 ug/m3 over baseline, respectively, even with the implementation of all the above-mentioned dust controls, further dust control measure and/or limits on the amount of waste received at the site may be necessary to control PM10 impacts.

31. Forward 1993 (D6)

Forward, Inc. shall schedule regular deliveries of waste at the landfill to minimize queuing and idling.

32. Austin 1994 (G2.b), Austin 2000 (G2.b)

The idling of all internal combustion equipment shall be limited to ten minutes at any given time.

33. Austin 1994 (G2.a), Austin 2000 (G2.a)

All internal combustion engine driven equipment should be properly maintained and tuned according to manufacturers' specifications.

34. Forward 1993 (D8)

All VOC-contaminated soil which is not being treated shall be covered with six-mil non-porous plastic.

35. Forward 1993 (D9)

If VOC emissions exceed APCD limits for open aeration, a VOC collection and removal system shall be installed to minimize VOC emissions.

36. Forward 1993 (D10)

Any net increase in VOC emissions which remain after the installation of a collection/removal system shall be offset to the degree required by SJVUAPCD Rule 220.1

E. PUBLIC HEALTH AND SAFETY

37. (E.1). Proposed as Part of the Project (Same as in 2013 EIR):

- Use a total of 17 pieces of equipment (at any given time) over the life of the project to minimize particulate discharge, will remain unchanged.
- Waste Management Unit operations at the landfill would be limited to a single working face for disposal operations at any given time.
- All employees would be given appropriate training regarding the potential for exposure to hazardous materials. This training will include a 24-hour hazardous waste operations course and an annual 8-hour refresher course for personnel involved in the "load checking" program where the incoming loads are screened for hazardous materials.
- The landfill would not accept any designated waste that may potentially contain hazardous levels of regulated substances (as defined in water Code Section 13173) unless authorized by the RWQCB.
- Dust control procedures specified in the Site Operations Plan (per the JTD) would use the application of fine water spray at a minimum of twice daily on the active soil-covered work areas, soil excavation areas, and soil stockpile areas where fugitive dust may exist.

- Existing fire protection facilities would be maintained to the satisfaction of the Lathrop – Manteca Fire Protection District.
- Dust exposure of site workers would be monitored periodically, at the discretion of the landfill manager, to evaluate if any additional respiratory protection or dust suppression (watering) mitigation is needed.
- Additional engineering controls would be implemented by the site operator, if needed based on the evaluation of the site health and safety or operations manager, to control dust emissions. Such controls might include wind screens near unloading areas or the use of dust suppressants.
- If the above controls cannot reduce employee dust exposure below acceptable levels as determined by Forward Landfill (considering factors including irritation and annoyance to employees), site personnel at risk would be supplied with gloves, coveralls, eye protection and respirators, with associated training in their use.
- Wastes must not leave the landfill on workers' clothing. Workers who have had direct contact with waste, or who have performed operations that may involve direct contact with wastes (such as equipment maintenance or asbestos handling), would wear disposable clothing or change clothing before leaving the site. The potentially contaminated clothing will be cleaned or disposed as appropriate.
- To avoid cross-contamination from contaminated to non-contaminated sites, the applicant would install a pressurized water distribution system to service a decontamination facility for personnel and equipment. The decontamination facility may be fixed or mobile.
- For asbestos, a strict Asbestos-Containing Materials (ACM) handling program would be developed, and would include the following:
    a. Bagged ACM would be dumped only onto the working face of the asbestos disposal area and not onto the flat compacted landfill surface. Bulldozers would then push soil cover onto the working face to cover the ACM bags and will not contact the bags.
    b. For Forward site employees engaged in handling asbestos materials, Forward will implement one of the following:
        1. a three-day approved asbestos workers training program
        2. any asbestos training program specific to landfill employees that has been developed, described, or required by regulation by either the CalRecycle or Cal-OSHA
        3. any other asbestos training program approved by Cal-OSHA
    c. Provision of water at the working face to keep ACM damp until covered.
- Continuation of the annual physical evaluations of all onsite Forward employees for asbestos exposure.
- Workers would not be allowed to eat near the active landfill.

38. Proposed as Part of the Project (Same as 2013 EIR Impact E.2):

The Forward Landfill "load-checking program," which is designed to mitigate against hazardous waste being placed in the landfill, will continue to be implemented for the consolidated landfill.

Landfill operators will be trained to recognize and properly segregate and handle hazardous waste. This will include a 24-hour hazardous waste materials management training program that complies with 29 CFR, Section 1910.

39. Proposed as Part of the Project (Same as 2013 EIR Impact E.3.):

The Standard Safe Work Practices listed in the Forward, Inc. Site Health and Safety Program and Contingency Plan will be implemented by the operator.

The landfill operator will comply with the provisions of CCR Title 27, Section 20590, which requires that O&M personnel wear and use approved safety equipment for personal heath and safety.

Landfill access will continue to be controlled to limit unauthorized entry by persons or vehicles.

The landfill operator will comply with all provisions of CCR, Title 27, Division 2, Chapter 3, Subchapter 4, Articles 1-3, that apply to landfill health and safety.

40. Identified in This EIR (Same as the 2013 EIR Mitigation Measure E.3.):

The San Joaquin County Public Works Department shall approve any new waste transport haul routes to the landfill from major arterials, SR 4, or Highway 99.

41. Proposed as Part of the Project:

Where required by State and Federal regulations, the landfill gas monitoring, gas control and collection system will be installed, extending to the new areas of the expanding landfill and operating in conformance with applicable regulations.

The existing gas extraction system, or an equivalent system, will continue to operate.

Regular gas monitoring will be conducted to prevent explosive or toxic gas accumulation in onsite buildings or beneath temporary buildings. The landfill operator will install an automatic combustible gas detection and alarm system for structures at the site.

The landfill operator will not construct or otherwise locate any structure in an area of known landfill gas build-up.

All site personnel who work in permanent structures will be trained to use and respond to the landfill gas monitoring and alarm system.

42. Identified in this EIR (Same as the 2013 EIR Mitigation Measure E.4.):

Landfill gas monitoring shall include volatile organic compounds in order to determine the amount of contaminant recovery, and control potential exposure to on site personnel.

43. (*Forward 2002) (E.5)*

The landfill operator shall submit an updated post-closure permit application for WMU-A that presents plans to prohibit the expansion of the new landfill areas above WMU-A. The applicant filed a renewal of its hazardous waste permit for WMU-A on October 31, 2000 (Kleinfelder, 2000) that presents the controls and monitoring of WMU-A. The applicant's JTD describes creating a wedge of landfill material north of WMU-A that would keep a buffer area around the WMU-A boundaries clear of new refuse and then start to build

outward and upward. This plan must have the approval of the California Department of Resources Recycling and Recovery and RWQCB.

44. Proposed as Part of the Project:

The landfill operator will follow legally required daily or alternative cover practices.

The landfill will continue to ban intact tires (which collect water and serve as a breeding ground for vectors) and large dead animals from disposal at the landfill.

Existing measures to discourage birds from the landfill will be continued. [Including continuation of the annual gull control program.]

Appropriate landfill personnel will periodically monitor the landfill for the presence of vectors, and landfill inspections will be documented in the landfill operations administrative file.

45. Identified in this EIR (Same as the 2013 EIR Mitigation Measure E.6.):

(a) All applicable regulatory guidance originating after the Forward Landfill 2002 EIR shall be implemented; all hazardous materials shall be handled in accordance with local, State, and federal regulations.

(b) The site HMMP, SWPPP, Operations Manual, and Wet Weather Plan shall serve to provide guidance in the use and handling of hazardous materials during the operations of the facility.

46. *Forward 2002 (E.8)*

Forward Landfill shall continue to test all known water supply wells within the area of the mapped and projected groundwater plume. Groundwater monitoring test shall be performed quarterly at all downgradient private wells at risk. Where detectable VOCs have historically been reported, bottled water shall continue to be supplied by the applicant (as is currently being done for two affected households) until the well sample analytical results show no detectable VOCs for four consecutive quarterly sampling events. Other offsite private wells such as the CYA wells that have not been adversely affected by the plume shall continue to be monitored and if VOC-contamination is reported then replacement water shall be provided by the applicant, if requested. For wells within the footprint of the plume, institutional controls such as notification to current and future landowners regarding risks of installing production wells shall be implemented as part of the local well permitting process.

47. Austin 1994 (L2.b) (updated), Austin 2000 (L2.b)

The landfill operator shall continue to participate in the San Joaquin County Regional Household Hazardous Waste Program to help reduce the amount of household hazardous waste in the waste stream.

48. Forward 1993 (A5)

Fire hydrants and a pressurized water source for fire suppression and dust control shall be installed.

49. Forward 1993 (A.11)

In order to reduce risks to public health due to particles of ash leaving the facility, all trucks containing ash shall be covered and water should be available at the ash pile to assure that all ashes which are dumped are damp. Active faces need to have a certain moisture content

so as to preclude the generation of dust. It is recognized that a balance must be struck between maintaining sufficient moisture for dust control and applying too much moisture such that the generation of excess leachate occurs. The conditions at the active faces of a landfill as well as the leachate generated, shall be monitored and professional judgment utilized at all times to keep these two factors in balance.

F. HYDROLOGY AND WATER QUALITY

50. Proposed as Part of the Project:

- The drainage study utilizes San Joaquin County local rainfall data, and the Rational Method would be used to estimate maximum potential runoff from a 1,000-year, 24-hour storm event. The surface water control system and drainage control structures for the proposed project would be sized to accommodate the calculated peak flows.
- As part of the design plans for the proposed landfill expansion, Forward will complete calculations of the 1000-year, 24-hour storm event peak discharges. The hydraulic and drainage study would be used to design appropriate drainage controls. Drainage controls would be designed to prevent contact between surface water and refuse. Site run-on and run-off control facilities consist of drains and perimeter ditches that channel surface water to holding and evaporation ponds on the site. The surface-water collection drain system would be designed to divert the water to the onsite sedimentation basins. All waste at the proposed Forward Landfill would be separated from the North and South Branches of South Littlejohns Creek by a levee system or other acceptable method designed to protect the site from a 100-year flood event.
- Channel design features are proposed as part of the expansion project: The project includes channel reconfiguration and localized flood protection berms to isolate the landfill surfaces from floodwaters.
- The project design shall also include provision of replacement floodplain area and storage volume in an easement along the relocated South Branch of South Littlejohns Creek.
- The channel and floodplain storage easement are designed to accommodate the 100-year, 24-hour storm. The design would also include a three-foot freeboard.

51. Proposed as Part of the Project:

- The current drainage control structures and monitoring would continue to be implemented to control erosion and sedimentation in the expansion areas. Proposed structural controls include the drainage control system and daily cover. Operational controls include maintenance of the drainage system by keeping ditches clear of debris and excessive vegetation, and making needed repairs to drainage structures. Corrective measures would be implemented if inspections show excessive erosion or damage to drainage channels. Any areas showing erosive effects would be mitigated by removing loose debris followed by replacement, regrading, and compacting the area. Monitoring and protection against sediment from entering the Little John's Creek channel would be implemented, including the diversion of part of Littlejohns Creek farther away from the landfilled area.
- In order to minimize sediment transport to Littlejohns Creek, landfill slopes, ridge tops, and peripheral areas would be revegetated to inhibit erosion.

52. Proposed as Part of the Project:

The following groundwater quality protection measures are proposed as part of the project: (as required under CCR Title 27)

- A pan lysimeter (secondary liner) would be installed under the sump area, as previously required by the RWQCB;
- The liner and leachate collection system for the two new expansion areas would meet Title 27 requirements and be reviewed and approved by the RWQCB and new WDRs issued, as warranted;
- The regulatory required separation between the liner and groundwater shall be implemented to allow for chemicals in the leachate to attenuate before reaching the groundwater, should the leachate breach the liner and leachate collection system;
- Leak location testing of the liner in each WMU shall be conducted before waste can be disposed in that Unit, as required by the RWQCB;
- If any modifications to the leachate collection system and associated monitoring are required by the RWQCB, the landfill operator shall implement those changes;
- The liner system will be overlain by a protective operations layer consisting of a one-foot thickness of soil and a one-foot thick gravel layer that serves as the leachate collection layer. This two-foot layer will serve to protect the liner system from sharp or jagged materials in the waste.
- The operator will remove any hazardous materials spotted during delivery, thus minimizing the potential for leachate impacts to groundwater if a break occurs in the liner or the leachate collection system.
- Landfill operations and maintenance are designed with appropriate schedules to identify and correct any failures in the leachate collection system.
- In addition, the RWQCB will review the updated Joint Technical Document (JTD), the leachate collection system, and associated monitoring, and could require changes to the planned leachate collection system or monitoring.

53. Proposed as Part of the Project:

- The proposed measures to address concerns about additional leachate generation as a result of the expanded landfill will be addressed in the JTD with the presentation of the updated EPA HELP model results based on the projected volumes of refuse, a historical analyses of actual leachate generation volumes (which were at significantly higher volumes than the model predicted for peak year rainfall) and the description of the leachate collection system designed to meet the maximum probable leachate generated. Engineering control systems (leachate collection system, drainage control, groundwater and gas controls), monitoring programs, and institutional controls will be similar to the successful systems that have been presented in the JTD for the existing Forward Landfill, which has been reviewed by the RWQCB. Reporting on leachate generation volume and quality is a requirement of the RWQCB-stipulated progress reporting through the various proposed landfilling phases.

- The landfill cell anchor trenches would be elevated two to three feet above the surrounding land to minimize the possibility of water from major storm events draining into the cells and adding to the volume of leachate.

54. Proposed as Part of the Project

The following measures are proposed as part of the project, as described in the Project Description and design study for the proposed creek realignment:

- The channel must function as a natural corridor, require little or no maintenance once the vegetation is established, and should provide 100-year flood protection.
- The channel slope and depth will be appropriate to the 100-year flood protection. The channel slope and depth are based on the invert elevations of the existing channel at the start and end of the new channel. The slope between these two points along this alignment is designed for 0.00055 ft/ft which translates into a ground surface profile along the alignment a channel depth between 10 and 12 feet.
- The appropriate responsible agencies must review and approve the updated April 2018 design for the relocation of the South Branch of South Littlejohns Creek.

55. Proposed as Part of the 2013 Project:

- A liner and LCRS would be constructed at the interface of the expansion cells and the existing Class III cells, similar to the liner and LCRS that has been designed, constructed, and approved by the RWQCB for the existing Forward Landfill.
- Because the liner and LCRS would be constructed on a refuse surface, the liner and LCRS design would account for differential settlements of the underlying refuse.
- The appropriate responsible agencies, CalRecycle and RWQCB, shall conduct a review of the liner and leachate collection system for the interface liner and LCRS in the upcoming JTD update.

56. Proposed as Part of the Project

- Forward Landfill has agreed to a short-term and long-term mitigation of the offsite impacts of the existing VOC plume, to provide an alternative source of drinking water to those residents in the downgradient area who are using domestic water wells for drinking water and whose domestic wells may be adversely affected by the VOC plume. A long-term solution currently being investigated by Forward to assist those residents on Newcastle Road, who are already being provided with bottled drinking water by Forward, is for Forward to provide the property owners on Newcastle Road in the footprint of the downgradient plume with municipal piped water to replace the current use of the supply wells;
- The residences on Newcastle Road would continue to be supplied with bottled water until municipal piped water is provided;
- Residents on Austin Road would continue to be supplied with bottled water from the City of Stockton until municipal piped water is provided.
- Because of the potential for impact from the plume to the downgradient receptors, determination of the sampling program frequency and any changes to it, along with the appropriate mitigation, is the responsibility of the RWQCB and must be carried out under their permit authorization; and
- The groundwater capture and remediation system could be augmented to capture the current offsite plume to the satisfaction of the RWQCB based on their review of future source control reports.

57. Proposed as Part of the Project (Supersedes #~~57~~, below)

- Continued recharge of extracted and treated groundwater. In the GeoLogic 2017 Corrective Action Monitoring Workplan the construction of a storage basin for treatment system effluent that would subsequently infiltrate and recharge the groundwater is proposed. Although the recharge program does not specifically address the loss of infiltration within the expansion area it is designed to generally meet the intent of the water district to minimize overdrafting.

~~**57. Proposed as Part of the 2013 Project**~~

- ~~Continued recharge of extracted and treated groundwater. Although the existing recharge program being carried out by Forward Inc. does not specifically address the loss of infiltration within the expansion area it is designed to generally meet the intent of the Authority to minimize overdrafting.~~

58. Identified in This SEIR (G.8):

Implement the proposed Questa Engineering design specifications and standard construction BMPs during the construction phase of the South Branch of Sough Littlejohns Creek realignment. Construction of the realigned creek channel shall be implemented during the dry season.

59. Forward 2002 (F4):

Continued monitoring of the effectiveness of mitigation measures for leachate shall be performed by the responsible regulatory agencies (currently the RWQCB and, for the WMU-A, the DTSC). These agencies keep abreast of state-of-the-art information on leachate generation mechanisms and appropriate mitigation. If, in the future, monitoring demonstrates that the procedures above were insufficient to mitigate the effects of landfill-generated leachate, the agencies will, as appropriate, require additional mitigation measures.

~~60.~~ Forward 2002 (F7) (superseded by Measures 57-59, above):

~~Two infiltration methods are currently used at the landfill. Most of the groundwater currently pumped by the former agricultural well is used onsite; thus, some of it will infiltrate through the unlined parts of the site and migrate back to the groundwater aquifer from where it was extracted. Secondly, the treated groundwater from the groundwater extraction system is discharged into Littlejohns Creek currently, which both recharges aquifers below and moves offsite.~~

~~Treated groundwater from the groundwater extraction system is proposed to be infiltrated back to the aquifer through an infiltration basin (AEE, 2001B, 2002a) located near well MW-11. The infiltration basin would improve recharge to the local aquifer and is also designed to create a hydraulic barrier to inhibit further northward migration of the groundwater plume. The RWQCB letter to Forward dated March 11, 2002 agreed to allow for their recharge remedy (Alternative 11) to go forward without Alternative 3 (extended pumping) while quarterly monitoring at the groundwater wells occurs. If the groundwater VOC concentrations do not attenuate at a rate that is acceptable to the RWQCB then the Board will require that Alternative 3, or some variant on Alternative 3, be implemented. The recent (AEE, 2002a) addendum to the corrective action proposed procedures to analyze the hydrochemical trends and trigger concentrations at which additional extraction wells would be considered.~~

60. ***Forward 2002 (F.9)***

Replacement wells (as well as additional wells north of the Austin Road Landfill to better define the leading edge of the plume) shall be installed to mitigate against the loss of old wells as presented in the JTD currently under review by the RWQCB. The RWQCB must approve the JTD's plans for the number and location of the new wells as part of their approval process, which is separate from the EIR approval process.

61. Austin 1994 (K3.c), Austin 2000 (K3.c)

The timing of the pumped discharge from the detention pond must not occur with the peak flow rate of Little John's Creek as this would impact downstream locations by increasing the flood hazard. Telemetry, which monitors the flow in the creek to determine the peak, should be provided. This information should then be used to coordinate the start-up of the pumps.

62. Austin 1994 (K5.e), Austin 2000 (K5.e)

The landfill operator would include practices and procedures in the SWFP to comply with AB 1760. The procedures would describe how the expanded landfill would salvage all economically feasible metallic discards.

63. Forward 1993 (C3)

Diesel fuel should be stored in a manner which provides for secondary containment.

G. SOILS AND GEOLOGY

64. (G.2) Proposed as Part of the 2013 Project (and incorporated by reference in this Project):

- Overall reduction—or, in some cases, elimination or improvement—of slope instability at the project site can be achieved through the implementation of the seismic design measures designed to meet CCR Title 27.

65. (G.3) Proposed as Part of the 2013 Project (and incorporated by reference in this Project):

- The applicant's Joint Technical Document references an erosion-control plan that delineates various actions to minimize erosion and sedimentation, including maintaining the effectiveness of the surface drainage control structures by keeping drainage ditches clear of debris and excessive vegetation and by making repairs, as necessary, to correct the effects of physical damage, erosion, settlement, or other events detrimental to effective operation of the drainage control system, and appropriate construction, landscaping, and maintenance of graded slopes and subsurface drainage systems. As part of that plan, grading operations would be scheduled to avoid the rainy season and be implemented by interim engineering control measures. Before grading is stopped, slopes would be directed to carry runoff to areas where erosion and sedimentation can be controlled. Truck beds would be hosed down to reduce soil spillage on paved roads and wind-blown dust. The proposed expansion area would incorporate the same features as used for the existing landfill. In addition, the relocation of Littlejohns Creek could lessen the sedimentation potential to the creek.
- Completed cells will be stabilized by the planting and maintenance of drought-resistant grasses. This will inhibit wind and water erosion and maximize the fertility of the soil in order to facilitate revegetation.
- Temporary plantings, geofabric drapes, and erosion-preventing diversions of surface water will be constructed as appropriate on temporary slopes.
- Regular operational and post-closure monitoring of erosion control structures and plantings will be done for a minimum of five years.

66. Forward 1993 (B.5)

Assessment of groundwater levels in monitoring wells shall be initiated within 24 hours following an earthquake event having a Modified Mercalli intensity of V or greater at the landfill. This will allow the water level database to be adjusted or seismic variations. In the event that anomalous water level changes are noted, a series of water quality sampling and

testing events shall be initiated by the applicant in coordination with the RWQCB to detect an changes in water quality that may signify subsurface adjustments in landfill cells.

67. Forward 1993 (B.6)

Benchmarks shall be established (these could utilize monitoring well top of casing elevations), which will allow for determinations of settlement/ consolidation of fill materials in closed sections of the landfill on an annual basis and following significant seismic events (Modified Mercalli Scale of V or above). In the event that changes are noted, the cause should be determined as should the effect on leachate collection and recovery systems. Repair liners and LCRS as necessary. In addition, remedial grading should be accomplished to restore the original cap's function to repel water and direct surface runoff.

H. BIOLOGICAL RESOURCES

68. (F.1.) Identified in this SEIR:

Prior to site grading, the project sponsor shall obtain re-verification of the jurisdictional delineation conducted for the project; this will ascertain the extent of jurisdictional waters and wetlands on the site, including the creek and potentially onsite storm control features (detention basins, dry ditches). The re-verified jurisdictional delineation will serve to confirm the acreage of jurisdictional area to be impacted and for which mitigation will be provided. Prior to site grading, the project sponsor shall obtain permits under Sections 401 and 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code for all impacts to jurisdictional resources; all permit conditions shall be implemented. At a minimum, an equivalent acreage of jurisdictional area to be impacted shall be established within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek (1:1 in-kind replacement of jurisdictional habitats impacted by the creek relocation), and if required by permit conditions, additional compensatory mitigation will be purchased from an USACE, RWQCB and/or CDFW-approved wetland mitigation bank. These mitigation components are discussed further below.

<u>Onsite Replacement of Jurisdictional Habitat</u>

A Creek Channel Mitigation and Monitoring Plan shall be prepared and submitted for agency review to ensure a "no net loss" of wildlife value or acreage of creek habitat. At a minimum, the Plan shall include the creation of the equivalent (in-kind) acreage of jurisdictional habitat within the relocated segment of the South Branch of the South Fork of Littlejohn's Creek. The Concept Design Report (Questa 2017) indicates that approximately 1.87 acres of creek habitat would be created in the longer, relocated creek channel, so an increase in jurisdictional habitat (1.87 acres vs. 1.25 acres) is anticipated. The Project Sponsor shall ensure that the mitigation area, along with an appropriate upland buffer, are preserved in perpetuity via recordation of a deed restriction or similar easement.

The Creek Channel Mitigation and Monitoring Plan shall include the following details:

- The location(s) of mitigation areas, including the types and extent of each habitat type to be created.
- Mitigation for loss of existing jurisdictional habitat shall at a minimum include the creation of equivalent acreage of jurisdictional habitat present within the channel (as determined by the re-verified jurisdictional delineation). Mitigation habitats shall replace the existing functions and services provided by the impacted channel.

- All graded areas within the habitat restoration area shall be seeded with appropriate mixes of California native grass and forb species, developed by a qualified restoration ecologist.
- The stated goal of the mitigation effort shall be to establish self-sustaining creek channel habitat that shall not require long-term irrigation or maintenance.
- The mitigation site shall include the establishment of a vegetated upland buffer no less than 50 feet wide on both sides of the recreated channel, where practicable.
- Provide grading details, location and quantities of all plant materials to be planted or seeded, native seed mixes to be used on all bare ground surfaces, monitoring procedures and schedules, identification of remedial measures, and performance criteria to be used by the agencies to assess success or failure of the mitigation effort.
- Long-term monitoring over a minimum of five years shall be funded by the Project Sponsor, subject to approval by the regulatory agencies.
- Annual monitoring reports shall be submitted to each permitting agency.
- A wetland delineation and habitat map shall be prepared during the final year of monitoring and included in the final annual report.

Subject to review and modification by the regulatory agencies, specified success standards shall call for, at a minimum, 1:1 replacement of the creek channel that currently occurs, as detailed in the most recent wetland delineation report, at the end of the monitoring period.

[The wetland re-verification has been completed; grading will comply with the conditions in the US Army Corps of Engineers verification letter dated December 17, 2018 Initial Proffered Permit.]

Off-Site Wetland Mitigation

In addition to the approximately 1.87 acres of wetlands to be created onsite, if required as a permit condition, additional mitigation credits may be purchased from a qualified wetland mitigation bank with a Service Area that covers the project site, or as otherwise approved in advance by the USACE and RWQCB. For example, the expanded Service Area of the Cosumnes Floodplain Mitigation Bank covers the project site. This mitigation bank sells Floodplain Mosaic Wetlands credits (404) credits that would appropriately mitigate impacts to wetlands within the existing channel. This, in combination with the onsite jurisdictional habitat mitigation, would provide opportunities (if needed) to comply with a higher permit-required replacement ratio for wetland impacts, and also provide opportunities for riparian habitat mitigation.

In lieu of purchasing mitigation credits, if additional wetland mitigation (greater than the 1.87 acres proposed as part of the project) is required as a permit condition, the Sacramento District of the USACE has an “In Lieu Fee Program” to which the project sponsor may make payment. The fee is based on a fee schedule for various wetland habitat types. The fee is payable to the National Fish and Wildlife Foundation (NFWF) to be deposited in NFWF's Sacramento District Wetlands Conservation Fund.

69. (F.2.1) Identified in this SEIR:

To ensure that no aquatic vertebrates are stranded during abandonment of the existing South Branch of the South Fork of Littlejohn’s Creek, the following measures shall be implemented:

- Channel abandonment shall be restricted to the dry season (i.e., between June 15 and October 15).
- Channel abandonment shall occur only when the channel bottom has been dry for at least one week, that is, at least one week after the most recent release of water from Farmington Reservoir or any other sources.
- Prior to initiation of any work within the abandoned channel (e.g., construction of coffer dams, filling, connecting to the realigned channel), a qualified biologist approved by the USFWS and CDFW shall inspect the entire length of the work area for any stranded aquatic vertebrates; any stranded aquatic vertebrates shall be captured and relocated to the nearest body of water in the same stream system.
- Only a qualified biologist with all necessary federal and/or State permits may relocate fish and amphibians. Federally and State-listed species may only be relocated by biologist holding the appropriate federal or State permits. A record shall be maintained and submitted to the USFWS and CDFW of all fish and amphibians captured and relocated.
- Any observed mortalities of species-status species shall be immediately reported to the USFWS and CDFW.

70. (F.2.2) Identified in this SEIR:

Water shall be released into the restored South Branch of the South Fork of Littlejohn's Creek gradually to avoid creating a sediment plume downstream that could attract and cause mortality to Chinook salmon or steelhead from the San Joaquin River to enter the channel. After the relocation of the channel is completed and is ready to convey water, initial flows will be released at approximately 2 cubic feet/ second (cfs), and shall be monitored to assure that water is released gradually through the channel for the first week after re-opening. This reduced flow would avoid causing a sediment plume. The restored channel shall not be opened prior to or during a significant rainfall event, and initial releases into the channel shall be coordinated with the Central San Joaquin Water Conservation District to ensure no significant releases are scheduled during the initial opening of the channel.

71. (F.3) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for giant garter snake pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for "incidental take" of giant garter snake, the following measures required by the SJMSCP (SJCOG 2000) shall be applied:

A) A preconstruction survey for the species shall be conducted according to the requirements of the SJMSCP by a qualified biologist approved by the SJMSCP Technical Advisory Committee (TAC). If a giant garter snake is detected within the study area, the project will undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. The project shall also comply with any mitigation requirements specified for giant garter snake habitat by the SJMSCP TAC (SJCOG 2000). Avoidance and minimization measures may include the following, as specified by the TAC:

1. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the SJMSCP Joint Powers Authority (JPA), with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.
2. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.

3. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
4. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.
5. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:
    a) Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;
    b) Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
    c) Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
6. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.
7. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
8. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
9. Other provisions of the USFWS *Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat* shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).

72. (F.4) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for western pond turtle pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for incidental take of the species, preconstruction surveys for western pond turtles shall be conducted within the project study area by a qualified biologist approved by the SJMSCP TAC. If the species is detected, within the study area, the project shall undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. Avoidance and minimization measures may include the following, as specified by the TAC:

1) When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has begun or will begin before nesting periods end (the period from egg laying to emergence of hatchlings is normally April to November). The buffer zones shall be maintained until the nesting season has ended.

73. (F.5a.) Identified in this SEIR:

Participation in the SJMSCP affords the project proponent Incidental Take authorization for these species, both for direct impacts and loss of habitat. As specified in the SJMSCP, incidental take avoidance measures have been developed and must be implemented to conform to the SJMSCP; each species is discussed separately, below.

All SJMSCP Covered Bird Species are subject to the MBTA. The SJMSCP is based on the more stringent, federal standard for "take" pursuant to the FESA, which includes modification of habitat. Incidental Take Permits for SJMSCP-covered bird species are included in the SJMSCP, to allow for the conversion of habitat with appropriate creation of compensatory habitat for these species (SJCOG 2000). However, to conform to the MBTA, the Incidental Take Minimization Measures of the SJMSCP may not result in a “take”, as defined by the MBTA, of SJMSCP Covered Bird Species. The Incidental Take Minimization Measures in Section 5.2.4 of the SJMSCP have been designed to avoid such a “take”.

Swainson’s Hawk

Swainson’s hawks have been observed in the project vicinity and there is a known nest site in an oak tree on Austin Road, approximately 200 feet from the landfill boundary. Potentially suitable nest sites are also present near to the project site, particularly along the North Branch of the South Fork of Littlejohn’s Creek. The proposed project does not include the removal of any potential nest trees, but construction activities would occur in proximity to a known nest site and potential nest trees. Given the use of the site as a landfill and associated truck traffic and landfill operation activities, baseline noise conditions are high on the site. Initial construction activities (e.g., soil excavation) could temporarily elevate onsite noise levels, thus potentially affecting an active Swainson's hawk nest (should one occur within 500 feet of the construction zone). Participation in the SJMSCP affords the project proponent Incidental Take authorization for Swainson’s hawk pursuant to ESA, CESA and CEQA. To conform to the SJMSCP in regards to protecting potentially occurring nearby active nests, the following measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (February 16 through August 31), a preconstruction survey for Swainson’s hawk nests shall be performed by a qualified biologist.
- If an occupied Swainson's hawk nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave the nest. The setback distance may be smaller, subject to CDFW approval. Setbacks shall be marked by brightly colored temporary fencing.
- If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Golden Eagle

Although no suitable nesting sites for golden eagle are present onsite, potential nesting habitat occurs on adjacent properties. Participation in the SJMSCP affords the project proponent Incidental Take authorization for golden eagle pursuant to ESA, CESA and CEQA. As outlined in the SJMSCP[1], when a site inspection indicates the presence of a nesting golden eagle, the following measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the nesting season (*i.e.,* normally approximately February 1 - June 30), a preconstruction survey shall be performed by a qualified biologist.
- If an occupied golden eagle nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season (*i.e.,* normally approximately February 1 - June 30) for the period encompassing nest building and continuing until fledglings leave nests.
- This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied.
- Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA as described and are consistent with the provisions of the BGEPA.

White-tailed Kite

White-tailed kite has been observed foraging in the project area and suitable nesting habitat is present in the immediate project vicinity. Participation in the SJMSCP affords the project proponent Incidental Take authorization for white-tailed kite in the form of habitat conversion provided the following Incidental Take Minimization Measures, as outlined in the SJMSCP[2], are followed:

- Prior to the initiation of tree removals/pruning, ground clearing, grubbing, grading or excavation activities scheduled to occur during the nesting season (*i.e.,* normally approximately February 15 – September 15), a preconstruction survey shall be performed by a qualified biologist.
- A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests.
- This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Burrowing Owl

Although burrowing owls were not detected within the study area during biological surveys in 2005 and a follow up surveys in 2008, 2012, 2014, and 2017, some suitable habitat could occur on the site and in the project vicinity and the species could colonize the site in the future.

[1] SJMSCP Chapter 5.2.4.21
[2] SJMSCP Chapter 5.2.4.19

Participation in the SJMSCP affords the project proponent Incidental Take authorization for burrowing owl pursuant to ESA, CESA and CEQA; this provides both for the taking of the species incidental to otherwise lawful activities as well as the conversion of suitable burrowing owl habitat to non-suitable habitat. Consistent with the measures outlined in the SJMSCP[3] and CDFG 2012, the following impact minimization measures shall be followed:

- Consistent with the protocols outlined by the CDFG (2012 Appendix D), a "Take Avoidance Survey" shall be performed by a qualified biologist (as defined in CDFG 2012, page 5) no less than 14 days prior to the initiation of ground disturbance. A final survey shall be conducted 24 hours prior to ground disturbance.
- Ongoing rodent control measures at the landfill facility shall conform to the guidelines outlined in the SJMSCP, Appendix A[4] (see Impact F.10, below).
- The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins; tall vegetation will discourage colonization of the site by burrowing owl.
- Alternatively, if burrowing owls are not known or suspected on a project site and the area is an unlikely occupation site for red-legged frog, San Joaquin kit fox or tiger salamander, the Project Proponent may disc or plow the entire project site to temporarily close ground squirrel burrows and render the construction site temporarily unusable by burrowing owls.
- During the breeding season (i.e., 1 February through 31 August), occupied burrows shall not be disturbed in accordance with the following restrictions (CDFG 2012):
    - Between 1 April and 15 August, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low disturbance levels, and 500 m (1640 ft) for medium and high disturbance levels.
    - Between 16 August and 15 October, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low and medium disturbance levels, and 500 m (1640 ft) for high disturbance levels.
    - Between 16 October and 31 March, minimum setbacks from occupied burrows shall be 50 m (164 ft) for low disturbance levels, 100 m (328 ft) for medium disturbance levels and 500 m (1640 ft) for high disturbance levels.
- Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping. During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site may be evicted from the project site by passive relocation as described by the (CDFG (2012). Burrow exclusion and closure is not permitted during the breeding season.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Loggerhead Shrike

[3] SJMSCP Chapter 5.2.4.15
[4] USEPA 2000, cited in SJMSCP (Appendix A)

Loggerhead shrike has been observed foraging in the project area. Participation in the SJMSCP affords the project proponent Incidental Take authorization for loggerhead shrike pursuant to ESA, CESA and CEQA. Although little suitable nesting habitat is present on site, as outlined in the SJMSCP[5], the following incidental take avoidance measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 15), preconstruction survey shall be performed by a qualified biologist.
- A setback of 100 feet from loggerhead shrike nest sites shall be established and maintained during the nesting season (*i.e.,* February 1 to August 15) for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Northern Harrier and California Horned Lark

Although foraging northern harrier has been observed in the project vicinity and there is a potential for foraging by California horned lark, nesting by these species on site is considered unlikely due to the limited extent of grassland habitat. Participation in the SJMSCP affords the project proponent Incidental Take authorization for northern harrier and California horned lark pursuant to CESA and CEQA. Nonetheless, as outlined in the SJMSCP[6], the following incidental take avoidance measures shall be followed:

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.
- A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

Tricolored Blackbird

Suitable nesting habitat for this species does not occur on the project site, but it could nest in the riparian habitat associated with the North Branch of the South Fork of Littlejohn's creek. Participation in the SJMSCP affords the project proponent Incidental Take authorization for tricolored blackbird pursuant to CESA and CEQA. Nonetheless, as outlined in the SJMSCP[7], the following incidental take avoidance measures shall be followed:

[5] SJMSCP Chapter 5.2.4.18
[6] SJMSCP Chapter 5.2.4.17
[7] SJMSCP Chapter 5.2.4.17

- Prior to the initiation of ground clearing, grubbing, grading or excavation activities, scheduled to occur during the breeding season (*i.e.,* February 1 - August 31), preconstruction survey shall be performed by a qualified biologist.
- A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.

74. (F.5b.) Identified in this SEIR:

Any observations of Swainson's hawk, Golden eagle, white-tailed kite, burrowing owl, loggerhead shrike and/or California horned lark during the falconry program shall be recorded and monitored by the falconer. If any interactions (i.e. chasing) between the trained falcons and Swainson's hawks or other special status bird species are observed, this shall be documented and reported to the USFWS Migratory Bird Treaty Office and CDFW within 48 hours of occurrence. Appropriate additional measures to avoid impacts to special status birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFW.

75. (F.6) Identified in this SEIR:

Preconstruction surveys, consistent with the MBTA and the SJMSCP, shall be conducted for nesting birds during the nesting season (i.e., February 1 – September 1). Appropriate measures to avoid impacts to nesting birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFW.

76. (F.8) Identified in this SEIR:

The project shall comply with the SJMSCP mitigation requirements for the conversion of row and field crop lands (SJCOG 2000). Under the SJMSCP (2000), each acre of Swainson's hawk habitat (i.e., Agricultural Habitat Lands) converted to non-open space uses would be mitigated by the establishment of 1 acre of Row and Field Crop/Riparian Preserve (a 1:1 mitigation ratio). This measure would apply to the 8.6 acres of land to be developed in the southern portion of the property.

77. (F.10) Identified in this SEIR:

Rodenticides and methods of application used at the landfill shall be reviewed by a qualified biologist approved by the SJMSP TAC, to determine if they reflect the most effective and safe methods for controlling rodents. That biologist shall make recommendations for improvement if needed.

78. (H.1) Identified in the 2013 EIR (superseded by Mitigation F.1, above):

~~Prior to site grading, the project sponsor shall obtain permits under Sections 401 and 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code. These permits, administered by the RWQCB, USACE, and CDFG, respectively, would specify the mitigation measures to be imposed on the project as permit conditions. A Wetland Mitigation and Monitoring Plan shall be prepared and submitted for agency review to ensure a "no net loss" of wildlife value or acreage of wetlands or riparian habitat. At a minimum, the Plan shall include the creation of 4 acres of new wetlands and 9 acres of riparian plantings associated with the realigned creek channel, as presented in the conceptual design (Questa Engineering Corporation 2007) or as required by regulatory agencies. The Project Sponsor shall ensure that all mitigation~~

~~areas, along with an appropriate upland buffer, be placed in a permanent conservation easement, or similar deed restriction, and preserved in perpetuity.~~

~~The Wetland Mitigation and Monitoring Plan shall include the following details:~~

- ~~The location(s) of mitigation areas, including the types and extent of each habitat type to be created.~~
- ~~Mitigation for loss of existing wetlands shall be provided by the creation of 4 acres (3:1 mitigation ratio) of wetlands meeting the current federal definition, and 9 acres of riparian plantings (2:1 mitigation ratio).~~
- ~~All graded or filled areas within the habitat restoration area shall be seeded with appropriate mixes of native grass and forb species, developed by a qualified restoration ecologist.~~
- ~~Restored wetlands and riparian habitat shall have an equal or higher habitat value;~~
- ~~A water budget shall be prepared analyzing water demand for each mitigation habitat type and the ability of the watershed to support the target habitats.~~
- ~~The stated goal of the mitigation effort shall be to establish self-sustaining native riparian vegetation that shall not require long-term irrigation or maintenance.~~
- ~~The mitigation site shall include the establishment of a vegetated upland buffer no less than 50 feet wide on both sides of the recreated channel, where practicable.~~
- ~~Provide grading details, analysis of site hydrology and its ability to support the proposed riparian vegetation, location and quantities of all plant materials to be installed, native seed mixes to be used on all bare ground surfaces, monitoring procedures and schedules, identification of remedial measures, and performance criteria to be used by the agencies to assess success or failure of the mitigation effort.~~
- ~~Long-term monitoring of at least five years shall be funded by the Project Sponsors, subject to approval by the regulatory agencies.~~
- ~~Annual monitoring reports shall be submitted to each permitting agency.~~
- ~~A wetland delineation and habitat map shall be prepared during the final year of monitoring and included in the final annual report.~~
- ~~Subject to review and modification by the regulatory agencies, specified success standards shall call for, at a minimum, 80% survival of all container plantings and 75% total vegetative cover at the end of the monitoring period and after at least two consecutive years of no supplemental irrigation.~~

79. (H.2) Identified in 2013 EIR (Superseded by Mitigation F.2.2, above):

~~To ensure that no aquatic vertebrates are stranded during abandonment of the existing South Branch of the South Fork of Littlejohn's Creek, the following measures shall be implemented:~~

- ~~Channel abandonment shall be restricted to the dry season (i.e., between June 15 and October 15).~~
- ~~Channel abandonment shall occur only when the channel bottom has been dry for at least one week, that is, at least one week after the most recent release of water from Farmington Reservoir or any other sources.~~
- ~~Prior to initiation of any work within the abandoned channel (e.g., construction of coffer dams, filling, connecting to the realigned channel), a qualified biologist approved by the USFWS and CDFG shall inspect the entire length of the work area for any stranded~~

~~aquatic vertebrates; any stranded aquatic vertebrates shall be captured and relocated to the nearest body of water in the same stream system.~~

- ~~Only a qualified biologist with all necessary federal and/or State permits may relocate fish and amphibians. Federally and State-listed species may only be relocated by biologist holding the appropriate federal or State permits. A record shall be maintained and submitted to the USFWS and CDFG of all fish and amphibians captured and relocated.~~
- ~~Any observed mortalities of species-status species shall be immediately reported to the USFWS and CDFG.~~

~~Water should be released into the restored South Branch of the South Fork of Littlejohn's Creek gradually to avoid creating a sediment plume downstream that could attract and cause mortality to Chinook salmon or steelhead from the San Joaquin River to enter the channel. After the relocation of the channel is completed and is ready to convey water, initial flows will be released at approximately 2 cubic feet/second (cfs), and shall be monitored to insure that water is released gradually through the channel for the first week after re-opening. This reduced flow would avoid causing a sediment plume. The restored channel shall not be opened prior to or during a significant rainfall event, and initial releases into the channel shall be coordinated with the Central San Joaquin Water Conservation District to insure no significant releases are scheduled during the initial opening of the channel.~~

80. (H.3) Identified in 2013 EIR (Superseded by Mitigation F.3., above):

~~Participation in the SJMSCP affords the project proponent Incidental Take authorization for giant garter snake pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for avoid " incidental take" of giant garter snake, the following measures shall be applied. These measures are consistent with the SJMSCP (SJCOG 2000) and current recommendations of the USFWS.~~

~~1) A preconstruction survey for the species shall be conducted according to the requirements of the SJMSCP by a qualified biologist approved by the SJMSCP Technical Advisory Committee (TAC). If a giant garter snake is detected within the study area, the project will undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. The project will also comply with any mitigation requirements specified for giant garter snake habitat by the SJMSCP TAC (SJCOG 2000). Avoidance and minimization measures may include the following, as specified by the TAC:~~

1. ~~Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2nd and April 30th, the SJMSCP Joint Powers Authority (JPA), with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.~~
2. ~~Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to the minimal area necessary.~~
3. ~~Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.~~
4. ~~Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.~~

5. ~~In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:~~
   1. ~~Install temporary fencing at the edge of the construction area and the adjacent wetland, marsh, or ditch;~~
   2. ~~Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and~~
   3. ~~Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.~~
6. ~~If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.~~
7. ~~If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.~~
8. ~~Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.~~
9. ~~Other provisions of the USFWS Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat shall be implemented (excluding programmatic mitigation ratios which are superseded by the SJMSCP's mitigation ratios).~~

81. (H.4) Identified in 2013 EIR (Superseded by Mitigation F.4, above):

~~Participation in the SJMSCP affords the project proponent Incidental Take authorization for Pacific pond turtle pursuant to ESA, CESA and CEQA. Nonetheless, to minimize the potential for incidental take of the species, preconstruction surveys for Pacific pond turtles shall be conducted within the project study area by a qualified biologist approved by the SJMSCP TAC. If the species is detected, within the study area, the project will undertake Incidental Take Avoidance and Minimization Measures to protect the species as directed by the TAC. Avoidance and minimization measures may include the following, as specified by the TAC:~~

1) ~~When nesting areas for pond turtles are identified on a project site, a buffer area of 300 feet shall be established between the nesting site (which may be immediately adjacent to wetlands or extend up to 400 feet away from wetland areas in uplands) and the wetland located near the nesting site. These buffers shall be indicated by temporary fencing if construction has begun or will begin before nesting periods end (the period from egg laying to emergence of hatchlings is normally April to November). The buffer zones shall be maintained until the nesting season has ended.~~

82. (H.5) Identified in 2013 EIR (Superseded by Mitigation F.5a, above):

~~Participation in the SJMSCP affords the project proponent Incidental Take authorization for these species, both for direct impacts and loss of habitat. As specified in the SJMSCP,~~

~~incidental take avoidance measures have been developed and must be implemented to conform to the SJMSCP; each species is discussed separately, below.~~

~~All SJMSCP Covered Bird Species are subject to the MBTA. The SJMSCP is based on the more stringent, federal standard for "take" pursuant to the FESA, which includes modification of habitat. Incidental Take Permits for SJMSCP-covered bird species are included in the SJMSCP, to allow for the conversion of habitat with appropriate creation of compensatory habitat for these species (SJCOG 2000). However, to conform to the MBTA, the Incidental Take Minimization Measures of the SJMSCP may not result in a "take", as defined by the MBTA, of SJMSCP Covered Bird Species. The Incidental Take Minimization Measures in Section 5.2.4 of the SJMSCP have been designed to avoid such a "take".~~

~~*Swainson's Hawk*~~

~~Swainson's hawks have been observed in the project vicinity and potentially suitable nest sites are present adjacent to the project site. Participation in the SJMSCP affords the project proponent Incidental Take authorization for Swainson's hawk pursuant to ESA, CESA and CEQA. As outlined in the SJMSCP[8], the Project Proponent has the option of retaining known or potential Swainson's hawk nest trees (i.e., trees that hawks are known to have nested in within the past three years or trees, such as large oaks, which the hawks prefer for nesting) or removing the nest trees. To conform towith the SJMSCP, the following measures shall be followed:~~

~~If the Project Proponent elects to retain a nest tree, and in order to encourage tree retention, the following Incidental Take Minimization Measure shall be implemented during construction activities:~~

- ~~Prior to the initiation of ground clearing, grubbing, grading or excavation activities, a scheduled to occur during the breeding season (February 16 through August 31), preconstruction survey shall be performed by a qualified biologist.~~
- ~~If a nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest.~~
- ~~If the Project Proponent elects to remove a nest tree, then nest trees may be removed between September 1 and February 15, when the nests are unoccupied.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.~~

~~*Golden Eagle*~~

~~Although no suitable nesting sites for golden eagle are present onsite, potential nesting habitat occurs on adjacent properties. Participation in the SJMSCP affords the project proponent Incidental Take authorization for golden eagle pursuant to ESA, CESA and CEQA. As outlined in the SJMSCP[9], when a site inspection indicates the presence of a nesting golden eagle, the following measures shall be followed:~~

[8] SJMSCP Chapter 5.2.4.11
[9] SJMSCP Chapter 5.2.4.21

- ~~Prior to the initiation of ground clearing, grubbing, grading or excavation activities, a scheduled to occur during the nesting season (i.e., normally approximately February 1 – June 30), preconstruction survey shall be performed by a qualified biologist.~~
- ~~If an occupied golden eagle nest is detected, a setback of 500 feet from the nesting area shall be established and maintained during the nesting season (i.e., normally approximately February 1 – June 30) for the period encompassing nest building and continuing until fledglings leave nests.~~
- ~~This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied.~~
- ~~Setbacks shall be marked by brightly colored temporary fencing.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA as described and are consistent with the provisions of the BGEPA.~~

~~*White-tailed Kite*~~

~~White-tailed kite has been observed foraging in the project area and suitable nesting habitat is present on site and in the immediate project vicinity. Participation in the SJMSCP affords the project proponent Incidental Take authorization for white-tailed kite in the form of habitat conversion provided the following Incidental Take Minimization Measures as outlined in the SJMSCP are followed:~~

- ~~Prior to the initiation of tree removals/pruning, ground clearing, grubbing, grading or excavation activities scheduled to occur during the nesting season (i.e., normally approximately February 15 – September 15), a preconstruction survey shall be performed by a qualified biologist.~~
- ~~A setback of 100 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests.~~
- ~~This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.~~

~~*Burrowing Owl*~~

~~Although burrowing owls were not detected within the study area during biological surveys in 2005 and a follow up surveys in 2008 and 2012, suitable habitat is present on site and in the project vicinity and the species could colonize the site in the future. Participation in the SJMSCP affords the project proponent Incidental Take authorization for burrowing owl pursuant to ESA, CESA and CEQA; this provides both for the taking of the species incidental to otherwise lawful activities as well as the conversion of suitable burrowing owl habitat to non-suitable habitat. Consistent with the measures outlined in the SJMSCP and CDFG 2012, the following impact minimization measures shall be followed:~~

- ~~Consistent with the protocols outlined by the CDFG (2012 Appendix D), a "Take Avoidance Survey" shall be performed by a qualified biologist (as defined in CDFG 2012, page 5) no less than 14 days prior to the initiation of ground disturbance. A final survey shall be conducted 24 hours prior to ground disturbance.~~
- ~~Ongoing rodent control measures at the landfill facility shall conform to the guidelines outlined in the SJMSCP (Appendix A)10 (see Impact H.10, below).~~
- ~~The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins; tall vegetation will discourage colonization of the site by burrowing owl.~~
- ~~Alternatively, if burrowing owls are not known or suspected on a project site and the area is an unlikely occupation site for red-legged frog, San Joaquin kit fox or tiger salamander, the Project Proponent may disc or plow the entire project site to temporarily close ground squirrel burrows and render the construction site temporarily unusable by burrowing owls.~~
- ~~During the breeding season (i.e., 1 February through 31 August), occupied burrows shall not be disturbed in accordance with the following restrictions (CDFG 2012):~~
  - ~~Between 1 April and 15 August, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low disturbance levels, and 500 m (1640 ft) for medium and high disturbance levels.~~
  - ~~Between 16 August and 15 October, minimum setbacks from occupied burrows shall be 200 m (656 ft) for low and medium disturbance levels, and 500 m (1640 ft) for high disturbance levels.~~
  - ~~Between 16 October and 31 March, minimum setbacks from occupied burrows shall be 50 m (164 ft) for low disturbance levels, 100 m (328 ft) for medium disturbance levels and 500 m (1640 ft) for high disturbance levels.~~
- ~~Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping. During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site may be evicted from the project site by passive relocation as described by the (CDFG (20121995). Burrow exclusion and closure is not permitted during the breeding season.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.~~

~~*Loggerhead Shrike*~~

~~Loggerhead shrike has been observed foraging in the project area. Participation in the SJMSCP affords the project proponent Incidental Take authorization for loggerhead shrike pursuant to ESA, CESA and CEQA. Although little suitable nesting habitat is present on site,~~

[10] USEPA 2000, cited in SJMSCP (Appendix A)

~~as outlined in the SJMSCP11, the following incidental take avoidance measures shall be followed:~~

- ~~Prior to the initiation of ground clearing, grubbing, grading or excavation activities, a scheduled to occur during the breeding season (i.e., February 1 – August 15), preconstruction survey shall be performed by a qualified biologist.~~
- ~~A setback of 100 feet from loggerhead shrike nest sites shall be established and maintained during the nesting season (i.e., February 1 to August 15) for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.~~

~~*Northern Harrier and California Horned Lark*~~

~~Although foraging northern harrier has been observed in the project vicinity and there is a potential for foraging by California horned lark, nesting by these species on site is considered unlikely. Participation in the SJMSCP affords the project proponent Incidental Take authorization for northern harrier and California horned lark pursuant to CESA and CEQA. Nonetheless, as outlined in the SJMSCP12, the following incidental take avoidance measures shall be followed:~~

- ~~Prior to the initiation of ground clearing, grubbing, grading or excavation activities, a scheduled to occur during the breeding season (i.e., February 1 – August 31), preconstruction survey shall be performed by a qualified biologist.~~
- ~~A setback of 500 feet from nesting areas shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.~~
- ~~These Incidental Take Minimization Measures are consistent with the provisions of the MBTA.~~

~~Any observations of Swainson's hawk, Golden eagle, white-tailed kite, burrowing owl, loggerhead shrike and/or California horned lark during the falconry program shall be recorded and monitored by the falconer. If any interactions (i.e. chasing) between the trained falcons and Swainson's hawks or other special status bird species are observed, this shall be documented and reported to the USFWS Migratory Bird Treaty Office and CDFG within 48 hours of occurrence. Appropriate additional measures to avoid impacts to special status birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFG.~~

83. (H.6) Identified in 2013 EIR (Superseded by Mitigation F.6, above):

[11] SJMSCP Chapter 5.2.4.18
[12] SJMSCP Chapter 5.2.4.17

~~Preconstruction surveys, consistent with the MBTA and the SJMSCP, shall be conducted for nesting birds during the nesting season (i.e., February 1 – September 1). Appropriate measures to avoid impacts to nesting birds shall be determined through consultation with the USFWS Migratory Bird Treaty Office and CDFG.~~

84. (H.8) Identified in 2013 EIR (Superseded by Mitigation F.8, above):

~~The project shall comply with the SJMSCP mitigation requirements for the conversion of row and field crop lands (SJCOG 2000). Under the SJMSCP (2000), each acre of Swainson's hawk habitat (i.e., Agricultural Habitat Lands) converted to non-open space uses would be mitigated by the establishment of 1 acre of Row and Field Crop/Riparian Preserve (a 1:1 mitigation ratio).~~

85. (H.9) Identified in 2013 EIR:

The SJMSCP recommends that within habitat preserves, lighting should be directed downward and away from preserve areas (through the use of shields) to reduce impacts to areas occupied by SJMSCP Covered Species (SJCOG 2000). Night lighting with sodium lamps with sharp cutoff angles shall be used to focus light in active landfill areas (target areas) and to avoid nighttime lighting of adjacent open areas and trees.

86. (H.10) Identified in This EIR (Superseded by Mitigation F.10, above):

~~Rodenticides and methods of application used at the landfill shall be reviewed by a qualified biologist approved by the SJMSP TAC, to determine if they reflect the most effective and safe methods for controlling rodents. That biologist shall make recommendations for improvement if needed.~~

87. Austin 1994 (F2.a) (similar), Austin 2000 (F2.a)

Under current project plans, 31 of the 32 valley oaks are along the perimeter of the site or are in the designated wildlife preserve adjacent to the creek and would not be removed.

88. Austin 1994 (F2.b) (similar), Austin 2000 (F2.b)

Prior to initiation of any activity within a 100-foot radius of a valley oak proposed for retention, the project proponent shall install clearly visible temporary fencing around the dripline of the Valley oak to prevent inadvertent damage during on-site activities. Fencing shall be removed upon completion of activity within the oak's vicinity. Site workers shall be advised of the sensitivity of on-site oaks to disturbance.

89. Austin 1994 (F2.c) (similar), Austin 2000 (F2.c)

Where avoidance of a valley oak(s) as specified above is determined infeasible, the project proponent shall replace each oak as required by the County's Natural Resources Regulations: three oaks shall be planted in appropriate locations for each oak removed. Replacement trees shall be the same species as the removed trees. Replacement trees shall be planted on the site in association with the Wetland Mitigation and Monitoring Plan described above.

90. Austin 1994 (F2.d) (similar), Austin 2000 (F2.d)

To ensure the success of mitigation, planted and retained trees shall be monitored for a period of five years following initial disturbance within the vicinity of a retained tree or following planting of a replacement tree. If, during the course of monitoring, a significant decline in the health of planted or retained trees is identified by a qualified arborist, the tree shall be replaced as described above.

91. Austin 2000 (F14.a)

Pre-construction surveys for greater western mastiff bat should be conducted prior to removing any trees from the project site. These pre-construction surveys may be required and funded by the SJMSCP JPA and should be conducted by a biologist with experience surveying for bats, and the surveys should not occur any more than 30 days prior to the proposed tree removal. If no special-status bats are identified during the pre-construction survey(s), then no impacts to these bats would be expected to occur from construction of the proposed project. If, however, greater western mastiff bat is identified in any of the trees proposed for removal, reproductive status should be determined.

92. Austin 2000 (F14.b)

(Greater western mastiff bat) Maternity sites should be avoided until bats finish rearing young. Prior to the bats finishing rearing their young, bat roosts/maternal "bat houses" should be placed within a protected area in the vicinity of the roosting/maternity sites if possible. As soon as young are flying and foraging, the maternity sites should be sealed. Similarly, once bat houses are installed in protected areas, bats should be evicted from their roost sites within the project construction zone (i.e., should be evicted from the trees to be removed). Removal of roost sites should occur during dusk or evening after bats have left the sites unless otherwise approved. These measures are consistent with the SJMSCP.

93. Austin 2000 (F14.c)

(Greater western mastiff bat) Pre-construction surveys would prevent direct take of individuals or maternity sites. No immediate replacement of roosting habitat has been proposed. If a maternity roost or occupied roost is detected during pre-construction surveys, the SJMSCP JPA shall provide adequate replacement for loss of occupied habitat should be designed and implemented with input from CDFG. Implementation of these mitigation measures would reduce impacts to levels considered less than significant.

I. PUBLIC SERVICES AND UTILITIES

94. (I.1) Proposed as Part of the Project:

The landfill supervisor will be responsible for providing overall site security during normal working hours.

All areas and facilities, other than those expressly designated for use by haulers, will be considered restricted areas.

The landfill will have a perimeter barrier or topographic constraints designed to discourage unauthorized entry by persons or vehicles.

Areas within the site where hazardous or suspected hazardous materials are stored will be properly identified and secured.

The entrance to the site will have a lockable gate, which will be locked outside of the usual operating hours.

Salvaging and scavenging will be prohibited at the landfill, except for authorized materials recovery programs.

95. (I.2) Proposed as Part of the Project:

The project sponsor will continue to provide fire suppression equipment and procedures that are equivalent in effectiveness to those currently employed at the existing Forward Landfill, as described in the Site Health and Safety Program. The project sponsor will furnish information regarding proposed disposal operations and fire suppression measures at the proposed expanded landfill to the Lathrop-Manteca Fire District.

Existing fire protection facilities will be maintained (see also Impact/Mitigation Measure E.1).

96. (I.3) Proposed as Part of the Project:

The project sponsor will continue to apply, to the entire consolidated landfill, the safety procedures currently employed at the existing Forward Landfill and described in the Workplace Injury and Illness Prevention Plan. The project sponsor will furnish information regarding proposed disposal operations and safety procedures at the Austin Road Landfill, and the proposed consolidated landfill, to the Lathrop -Manteca Fire District.

Monthly inspections of all facilities for safety will be conducted in accordance with the Safety Checklist prepared by the National Solid Waste Management Association (NSWMA) or other checklist of equivalent scope and detail.

Safety meetings with employees will be conducted to disseminate safety information, in accordance with procedures described in the JTD.

Personal protective gear will be provided for the safe handling of solid waste, as described in the JTD.

97. (I.4) Proposed as Part of the Project:

If leachate is delivered to the City of Stockton Regional Wastewater Control Facility, the project sponsor will provide for independently corroborated test results to the City to demonstrate the chemical composition of the leachate extracted from the proposed consolidated landfill project. Monitoring and testing of landfill-generated leachate will meet the requirements of the City of Stockton Wastewater Ordinance and the City Municipal Utilities Department.

If leachate quality is not acceptable for disposal at the Regional Wastewater Control Facility, the project sponsor will either have the leachate collected and disposed off-site by a licensed Treatment and Disposal Facility, or will develop on-site leachate processing that will result in treated leachate that is acceptable for disposal at the wastewater treatment plant or acceptable to regulatory agencies for on-site use. The design and operation of any on-site leachate processing that is implemented will comply with all applicable laws and regulations.

J. CULTURAL RESOURCES

98. (J.1) Identified in this EIR:

An archaeological monitor shall be retained to observe the excavation of the new creek channel along the southern border of the parcel in order to identify potentially buried resources. In the event that any of the archaeological site indicators described above are found, work should be halted within a zone established by the project archaeologist until a plan for the evaluation of the resource under CEQA guidelines has been submitted to the appropriate permitting agency for approval.

If any potential cultural resources are encountered during the creek relocation excavation, the following measures shall be implemented:

(a). If prehistoric archaeological resources are discovered during excavation and construction of the proposed project, the project sponsor shall suspend all work in the immediate vicinity of the find pending site investigation by a qualified archaeologist or cultural resources consultant to assess the materials and determine their significance. If the qualified archaeologist determines that the find is an important archaeological resource, the project sponsor shall provide funding and time to allow recovering an archaeological sample or to implement avoidance measures. Work could continue at other locations while archaeological mitigation takes place.

(b) Evaluative testing, normally consisting of limited hand excavation to retrieve information and materials from the archaeological site, would be needed to demonstrate the eligibility of the resource to be included on the California Register of Historic Resources (CRHR). If eligibility is established, then a plan for mitigation of impacts to the resource should be submitted to the San Joaquin County Community Development Department for approval before any construction related earthmoving activities are allowed inside the zone designated as archaeologically sensitive by the project archaeologist. The plan must result in the extraction of sufficient volumes of non-redundant archaeological data so as to address important regional research considerations, must be performed by qualified professionals, and must result in detailed technical reports. Mitigation can take the form of additional data retrieval through hand excavation coupled with archaeological monitoring of all soils from the archaeologically sensitive zone. Monitoring is aimed at identifying, recording and/or removing archaeological materials and information for analysis, and also serves to limit damage to human remains, a typical component of both seasonal and year-round villages in the valley.

(c) The project sponsor shall allow only a qualified archaeologist or cultural resource consultant to collect any prehistoric cultural resources discovered on the site.

(d) If prehistoric archaeological deposits that include human remains are discovered by the project sponsor or any construction contractors during development of the project site, the project sponsor shall notify the County Coroner immediately. If the remains are found to be Native American, the Native American Heritage Commission shall be notified with 24 hours. The most likely descendant of the deceased Native American shall be notified and given the chance to make recommendations for the remains. If no recommendations are made within 24 hours, remains may be reinterred elsewhere on the property. If recommendations are made and not accepted, the Native American Heritage Commission shall mediate the issue.

K. VISUAL QUALITY

99. (K.3) Proposed as Part of the Project:

Native or drought-tolerant trees, shrubs, and grasses will be used in landscaping to conform to the natural vegetation of the area.

Working faces of the landfill will be minimized to reduce their visibility.

To the extent feasible, the top and side slopes of the landfill will be seeded with a mixture of native grasses and wildflowers that would visually blend with plants at the project site.

Upon closure, the top and side slopes of the landfill will be planted with native grasses to the extent feasible.

100. (K.5) Proposed as Part of the Project:

The use of highly reflective surface materials in constructing structures on the site will be prohibited.

Exterior building materials will be painted or otherwise treated with muted earthtone colors.

Screening vegetation has been planted along the Austin Road boundary of the site at the time this DEIR was prepared. This fulfills part (b) of Mitigation Measure K.4 in the 2002 Final EIR for the existing landfill (San Joaquin County, 2002), which is a condition of the permits for the existing landfill. The remainder of Mitigation Measure K.4 (reproduced in full below) is also a condition of the existing permits.

(a) Lighting for nighttime operations at the working face and other landfill facilities shall consist of sodium lamps with sharp cutoff angles and downward shielding and, to the extent feasible, shall be oriented in a direction that is not visible from off-site locations.

(b) Dense screening vegetation shall be planted [and maintained for the life of the project]along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations.

(c) For any future locations of the working face at which the screening vegetation in Mitigation Measure (b) above would not shield residents and motorists along Austin Road from night lighting, the project sponsor shall install temporary screens at the working face to block night lighting from residences and motorists along Austin Road.

101. Forward 2002 (K.4). **(First paragraph implemented after 2002 EIR was prepared):**

~~*Implement the procedure proposed as part of the project under Mitigation Measure 37 (K.3): Dense screening vegetation shall be planted along the Austin Road boundary of the site, with sufficient height and density at maturity to shield residents and motorists along Austin Road from views of landfill operations, including nighttime disposal operations*~~.

For any future locations of the working face at which the screening vegetation in the Mitigation Measure above would not shield residents and motorists along Austin Road from night lighting, the project sponsor shall install temporary screens at the working face to block night lighting from residences and motorists along Austin Road.

102. Austin 1994 (B3.d), Austin 2000 (B3.d)

At any time in the development of the expanded landfill when additional lighting is proposed, preliminary lighting designs should be sent to the Northern California Women's Facility for review and comments.

103. Proposed as Part of the Project:

- Daily inspection will be conducted to control litter on- and off-site, including the North and South Branches of the South Fork of Little Johns Creek, approach roads, entrance facilities, the transfer station/resource recovery facility, portable litter control fences, landfill perimeter fence, leachate impoundments, and storm water facilities including ditches, berms, and detention/sedimentation basins.
- All trucks will be tarped upon entering and exiting the facility. This policy will be strictly enforced. In accordance with San Joaquin County Ordinance No. 28870, adopted September 29, 1981 (Title 5 Health and Sanitation, Division 2. Solid Waste Collection and Disposal, Section 5-2502), tarps will be placed over open loads to avoid littering during transport of waste.
- Management of the daily working fill face to the smallest practical area with immediate compaction to minimize the area and debris subject to the impacts of wind.
- If possible, on windy days the daily fill face tipper location would be selected for its protection to minimize effects of wind (i.e., tipper facing into wind adjacent to the leeward sidewall, or sheltered by completed fill deposits).
- Waste that is more susceptible to windblown distribution may, on windy days, be worked immediately into the fill face and covered with a layer of daily cover, as needed, or the waste may be excluded from the site.
- Portable skid-mounted litter fences may be provided for deployment downwind as close as practical to the working area, as needed.
- Semi-permanent fencing may be provided around the fill area as an additional barrier to the migration of litter off-site when litter has not been contained by the portable litter fences. (Examples of additional barriers include but not limited to, a four-foot minimum temporary construction fence and/or a ten-foot or higher semi-permanent fence.) The utilization will be continually evaluated and the fence will be relocated or added as needed.
- Permanent fencing (ten-foot high with an additional three-foot kicker) may be constructed with possibility of placement on an eight-foot high berm.
- On very windy days when all other procedures are not successful in controlling blowing litter, the operator may apply cover material more frequently or immediately to the incoming waste load. As a last resort due to the facility's obligation to provide continued disposal service to its clientele, the operator may consider closing down the facility to incoming waste.
- Buffer zones resulting from required facility setbacks along the site's perimeter will provide some protection of adjacent properties.
- As a final control measure, personnel will be dispatched, as needed or daily if conditions require, to collect any litter that has escaped the above control measures. The personnel will collect litter from the facility and the facility access, as well as adjoining property, provided that the property owner allows access. If additional assistance is required beyond site personnel, temporary service agencies will be contacted.
- If litter is distributed by the wind into trees and bushes on facility property or adjoining properties, portable lifts may be employed to retrieve the litter.
- Portable litter vacuums may be used to collect litter that has accumulated on litter fences.

- The main highway leading to the site will be routinely inspected for litter. If the highway has litter associated with the trucks entering the facility, then the litter will be picked up on a routine basis. All necessary safety precautions will be followed.
- Before and after photos of any litter removal effort may be taken in the event anyone questions the level of effort spent on litter collection.
- Forward will fund signage along Austin, Arch, and French Camp Roads stating that all disposal site traffic loads shall be covered in accordance with Vehicle Code 23115(a).
- A 24-hour Litter hotline will be established. [Tel number: (209) 982-4298].
- A Litter Control Manager position will be created. The Litter Control Manager will be responsible for periodic inspection of loads for tarping, issuing notifications to vehicles for non-compliance with tarping procedures, responding to responding to litter complaints, and providing laborers to collect litter in response to verified complaints associated with Landfill operations.
- Additional portable litter fencing will be purchased to enhance the existing portable litter fences used at the active face.

104. (K.7) (same as 15 (D.1, above): **Identified in This EIR:**
Implement the fugitive dust control procedures and mitigation measures identified in Mitigation D.1.

105. Austin 1994 (B5.c), Austin 2000 (B5.c)
Trucks and loaders would be prevented from dumping materials at heights greater than the minimum necessary to ensure clearance of waste from the vehicle.

106. Austin 1994 (B5.e), Austin 2000 (B5.e)
Routine maintenance of roads would be conducted.

107. Austin 1994 (B5.f), Austin 2000 (B5.f)
The amount of disturbed, unvegetated area would be minimized.

108. Austin 1994 (B5.g), Austin 2000 (B5.g)
The project shall consider the use of alternative daily covers, such as synthetic foam or fabric, recycled paper made into slurries, or chipped green waste to reduce dust and haze

ATTACHMENT 2: MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation

MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

INTRODUCTION:

This Mitigation Monitoring and Reporting Program Checklist includes mitigation measures identified in this SEIR, as well as mitigation measures from four previous EIRs prepared for the project site, identified below as "Forward 1993", "Austin 1994", "Austin 2000", "Forward 2002", and "Forward 2013". These previous EIRs are discussed in more detail in the introduction to Attachment I Mitigation Measures, above.

Mitigation measures are grouped by the impact categories used in this EIR, and numbered sequentially.

Mitigation Measures from this EIR are printed in normal font, with the original Mitigation Measure numbers from this EIR following in (parentheses). Mitigation measures from the previous EIRs are printed in *italics* and identified by their source (Forward 1993, Austin 1994, Austin 2000, Forward 2002, or Forward 2013), followed by the Mitigation Measure number in the relevant EIR. Because some impacts in this EIR and in previous EIRs do not require mitigation measures, the original mitigation measure numbers are not sequential.

In some cases, mitigation measures from two or more of the previous EIRs that are substantially similar in content, or have been updated without otherwise being changed, have been combined. These mitigation measures are identified as "similar" and/or "updated". Mitigation measures from the four previous EIRs that have been replaced by equivalent measures in this EIR, or have already been implemented, are excluded from the list below.

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
A. LAND USE, PLANS, AND POLICIES			
~~(A.1) Implement Mitigation Measure A.4~~	~~See Mitigation Measure A.4~~	~~See Mitigation Measure A.4~~	
~~1. (A.2) Farmland conservation easement~~	~~Responsibility: Landfill operator Timing: Prior to approval of business license~~	~~Responsibility: San Joaquin County Community Development Department Timing: Prior to approval of business license~~	
2. (A.3) Submit Notice of Proposed Construction or Alteration (FAA Form 7460-1)	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
3. (A.4), 4. Bird Hazards			
Continue existing bird control measures	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Limit surface of ponds	Responsibility: Landfill operator Timing: The area of proposed and existing ponds shall be shown on any grading permits submitted to the County	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
~~Bird survey~~	~~Responsibility: Landfill operator Timing: Upon approval of Use Permit and prior to approval of Improvement Plan~~	~~Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan~~	
Limit noise-makers to daylight hours	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits and on a complaint basis	
Bird monitoring	Responsibility: Landfill operator	Responsibility: San Joaquin County	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
	Timing: Ongoing	Environmental Health Department Timing: During monthly site visits	
Additional bird control measures	Responsibility: Landfill operator Timing: As required	Responsibility: San Joaquin County Environmental Health Department Timing: As required	
Notify FAA and Airport	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: FAA and Stockton Metropolitan Airport Timing: Prior to approval of Improvement Plan	
Record of notification	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: California Department of Resources Recycling and Recovery Timing: Prior to approval of Improvement Plan	
Comply with FAA Advisory Circulars	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: FAA Timing: Prior to approval of Improvement Plan	
Additional FAA or Airport requirements	Responsibility: Landfill operator Timing: As required by FAA or Airport	Responsibility: FAA and/or Stockton Metropolitan Airport Timing: As determined by FAA or Airport	
Gull control program	Responsibility: Landfill operator Timing: Annually	Responsibility: San Joaquin County Community Development Department Timing: Annually (annual report)	
Form 7460-1	Responsibility: Landfill operator Timing: Prior to construction	Responsibility: FAA Timing: Prior to construction	
Communication with Airport	Responsibility: Landfill operator Timing: Annually	Responsibility: Stockton Metropolitan Airport Timing: Annually	
5. Install warning lights	Responsibility: Landfill operator	Responsibility: FAA	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
		Timing: When required by FAA	Timing: As determined by FAA	
	Notify FAA and Airport	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: FAA and Stockton Metropolitan Airport Timing: Prior to approval of Improvement Plan	
	Record of notification	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: California Department of Resources Recycling and Recovery Timing: Prior to approval of Improvement Plan	
6. (A.5)	Shield lighting	Responsibility: Landfill operator Timing: Shielding of lighting shall be shown on Improvement Plan	Responsibility: Stockton Metropolitan Airport Timing: Prior to approval of Improvement Plan	
	Form 7460-1	Responsibility: Landfill operator Timing: Prior to construction	Responsibility: FAA Timing: Prior to construction	
B. TRANSPORTATION AND CIRCULATION				
7. (B.7)	Fair share payment Improvements to Arch Road/Austin Road, Southbound	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan.	Responsibility: San Joaquin County Timing: Within one year of permit issuance for the project.	
8. (Forward 2013 (B.7)				
	~~Monitoring at Austin/ Mariposa and Austin/ French Camp~~	~~Responsibility: Landfill operator Timing: Five-year intervals until first phase of Mariposa Lakes is occupied, then annually~~	~~Responsibility: San Joaquin County Public Works Department Timing: Five-year intervals until first phase of Mariposa Lakes is occupied, then annually~~	
	~~Design improvements at Mariposa and Austin/ French Camp~~	~~Responsibility: Landfill operator Timing: When LOS is D or worse~~	~~Responsibility: San Joaquin County Public Works Department Timing: When LOS is D or worse~~	

Mitigation Measure	Implementation	Monitoring	Implementation Confirmation
Comments			
~~Construct improvements at Mariposa and Austin/ French Camp~~	~~Responsibility: Landfill operator Timing: Within one year of permit issuance for: project~~	~~Responsibility: San Joaquin County Public Works Department Timing: Within one year of permit issuance for project~~	
~~*9. Forward 2002 (B.2) Signals at Austin/ Arch and Austin / French Camp Roads*~~	~~*Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan*~~	~~*Responsibility: San Joaquin County Public Works Department Timing: Prior to approval of Improvement Plan*~~	
~~*10. Forward 2002 (B.6) Austin/Mariposa turn lane*~~	~~*Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan*~~	~~*Responsibility: San Joaquin County Public Works Department Timing: Prior to approval of Improvement Plan*~~	
C. NOISE			
11. Sound barrier at 9690 Austin Road	Responsibility: Landfill operator Timing: Upon request by owner or tenant	Responsibility: San Joaquin County Community Development Department Timing: Upon request by owner or tenant	
Monitoring and additional sound measures	Responsibility: Landfill operator Timing: Upon complaint by owner or tenant	Responsibility: San Joaquin County Community Development Department Timing: Upon complaint by owner or tenant	
12. (C.2) Instructional flyer to drivers	Responsibility: Landfill operator Timing: Annually	Responsibility: San Joaquin County Community Development Department Timing: Annually	
Optional Sound barrier at Austin Road Houses	Responsibility: Landfill operator Timing: Upon request by owner or tenant	Responsibility: San Joaquin County Community Development Department Timing: Upon request by owner or tenant	
13. (C.3) Limit nighttime equipment operation; Noise berm	Responsibility: Landfill operator Timing: The Improvement Plan shall indicate if nighttime operations will occur within 1500 feet or residences	Responsibility: San Joaquin County Community Development Department Timing: Prior to approval of the Improvement Plan and on a complaint basis	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
	and, if so, identify the location and dimensions of the berm		
~~14. *Forward 1993 (E3)* *Sound wall at 9690 Austin Road*~~	~~*Responsibility: Landfill operator* *Timing: If and when requested*~~	~~*Responsibility: San Joaquin County Community Development Department* *Timing: If and when requested*~~	
~~15. *Forward 1993 (E1)* *Quietest available Equipment*~~	~~*Responsibility: Landfill operator* *Timing: Ongoing*~~	~~*Responsibility: San Joaquin County Community Development Department* *Timing: Annually and on a complaint basis*~~	
~~16. *Forward 1993 (E2)*~~	~~*Responsibility: Landfill operator* *Maintain mufflersTiming: Ongoing*~~	~~*Responsibility: San Joaquin County Community Development Department* *Timing: Annually and on a complaint basis*~~	
~~*17. Austin 1994 (H1.a) (similar), Austin 2000 (H1.a)* *Conform to County noise standards*~~	~~*Responsibility: Landfill operator* *Timing: Ongoing*~~	~~*Responsibility: San Joaquin County Community Development Department* *Timing: Annually, and on a complaint basis*~~	
~~*18. Austin 1994 (H1.b), Austin 2000 (H1.b)* *Setbacks and limits on hours*~~	~~*Responsibility: Landfill operator* *Timing: Ongoing*~~	~~*Responsibility: San Joaquin County Community Development Department* *Timing: Annually, and on a complaint Basis*~~	
14. Austin 1994 (H1.a, H1.b), Austin 2000 (H1.a, H1.b) Forward 1993 (E1) Forward 1993 (E2) Forward 1993 (E3) *Demonstrate conformance to County noise standards, use quietest equipment, use setbacks and limits on hours*	*Responsibility: Landfill Operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Community Development Department* *Timing: Annually, and on a complaint basis.*	
D. AIR QUALITY/ODORS			
15. (D.1) Dust control plan	Responsibility: Landfill operator Timing: 30 days prior to construction	Responsibility: San Joaquin Valley Air Pollution Control District	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
	activity disturbing 40 acres or more	Timing: 30 days prior to construction activity disturbing 40 acres or more	
Control measures for construction, excavation, extraction, and other earthmoving activities	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
Control measures for construction PM_{10}	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
Control measures for construction NOx and VOC	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
16. (D.2a) Rule 2201 for stationary source VOCs, NOx, and PM_{10}	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
Emission reduction credits	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
Dust control (Regulation VIII)	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
17.(D.2.b) Voluntary Emissions Reduction Agreement or other emissions-reduction methods	Responsibility: Landfill operator Timing: As required	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
18. (D.3) Odor control during cannery waste processing	Responsibility: Landfill operator Timing: Daily during cannery waste processing	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
19. (D.4) Report GHG	Responsibility: Landfill operator	Responsibility: San Joaquin Valley	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
Emissions	Timing: Annually	Air Pollution Control District Timing: Annually	
Purchase GHG credits	Responsibility: Landfill operator Timing: Annually if required	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Annually if required	
~~20. (D.5) Implement Mitigation Measures IV.D.1, IV.D.2. and IV.D-5~~	~~See Mitigation Measures IV.D.1, IV.D.2., and IV.D-5~~	~~See Mitigation Measures IV.D.1, IV.D.2., and IV.D-5~~	
20. Forward 2002 (D.2)			
Landfill gas recovery at Forward Landfill	*Responsibility: Landfill operator* *Timing: As determined by SJVAPCD (before gas release rate from all sources exceeds 150 cfm)*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly monitoring of gas release rate; implement when gas release rate from all sources exceeds 150 cfm*	
21. Austin 1994 (G5.b), Austin 2000 (G5.b)			
Mix or cover odorous wastes	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
22. Austin 1994 (G5.c), Austin 2000 (G5.c)			
Efficient material handling	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
23. Forward 1993 (D1)			
Balance dust control and leachate generation	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
24. Forward 1993 (D2)			
Revegetation	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
25. Austin 1994 (G1.b),Austin 2000 (G1.b) (similar)			

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
Minimize area exposed to wind erosion	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
26. Austin 1994 (G1.c),Austin 2000 (G1.c)			
Plan to avoid dry windy days	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
27. Austin 1994 (G1.d),Austin 2000 (G1.d)			
Orient active face away from prevailing winds	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
28. Austin 1994 (G1.e),Austin 2000 (G1.e)			
Cover and spray easily airborne material	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley* *Timing: Quarterly*	
29. Austin 1994 (G1.f),Austin 2000 (G1.f)			
Restrict travel over loose, uncompacted surfaces	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
30. Forward 1993 (D5)			
Monitoring station; further dust controls	*Responsibility: Landfill operator* *Timing: Monitoring station shall be shown in Improvement Plan; daily sampling; further measures as required by SJVAPCD*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
31. Forward 1993 (D6)			
Schedule deliveries	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
32. Austin 1994 (G2.b),Austin 2000 (G2.b)			
Limit idling to ten Minutes	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
33. Austin 1994 (G2.a),Austin 2000 (G2.a)			
Maintain all internal combustion equipment	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
34. Forward 1993 (D8)			
Cover VOC-contaminated soil	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
35. Forward 1993 (D9)			
VOC collection and removal system	*Responsibility: Landfill operator* *Timing: As required by SJVAPCD*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
36. Forward 1993 (D10)			
Offset VOC emissions	*Responsibility: Landfill operator* *Timing: As required by SJVAPCD*	*Responsibility: San Joaquin Valley Air Pollution Control District* *Timing: Quarterly*	
E. PUBLIC HEALTH AND SAFETY			
37. (E.1)Maximum 17 pieces of equipment	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
Single working face	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Employee training for hazardous materials	Responsibility: Landfill operator Timing: Annually and for new employees	Responsibility: California Division of Occupational Safety and Health (lead); San Joaquin County Environmental Health Department Timing: Quarterly (DOSH); during monthly site visits (EHD)	
Exclude hazardous waste	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: Review waste acceptance log during	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
		monthly site visits; review waste characterization forms when submitted	
Water spray for dust	Responsibility: Landfill operator Timing: Twice per day	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Maintain fire protection facilities	Responsibility: Landfill operator Timing: Fire protection facilities shall be shown on Improvement Plan	Responsibility: Lathrop - Manteca Fire Protection District Timing: Annually	
Monitor dust exposure	Responsibility: Landfill operator Timing: Periodically, at discretion of site manager	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Additional engineering controls	Responsibility: Landfill operator Timing: Ongoing monitoring, implement controls as required	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Protective equipment for workers	Responsibility: Landfill operator Timing: As needed	Responsibility: California Division of Occupational Safety and Health (lead); San Joaquin County Environmental Health Department Timing: Quarterly (DOSH); during monthly site visits (EHD)	
Clean or dispose contaminated clothing	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Pressurized water/ decontamination facility	Responsibility: Landfill operator Timing: The portable decontamination facility shall be shown on the Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan and during monthly site visits	
Asbestos-Containing Materials program	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
			Plan and during monthly site visits	
	Asbestos handling Program, training, and examinations	Responsibility: Landfill operator Timing: Annually	Responsibility: California Division of Occupational Safety and Health Timing: Annually	
	Prohibit eating near active landfill	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
38. (E.2)	Load checking program	Responsibility: Landfill operator Timing: Approve waste characterization form prior to waste disposal; check load at time of acceptance	Responsibility: San Joaquin County Environmental Health Department Timing: Review waste acceptance log during monthly site visits; review waste characterization forms when submitted	
	Train operators for hazardous waste	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
39. (E.3)	Standard Safe Work Practices	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Safety equipment for personnel	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Control landfill access	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Title 27 health and safety requirements	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
40. (E.3)	Approve new haul routes	Responsibility: Landfill operator Timing: When required by San Joaquin County Public	Responsibility: San Joaquin County Public Works Department Timing: If and when warranted	

Mitigation Measure Comments		Implementation	Monitoring	Implementation Confirmation
		Works Department		
41.	Expand landfill gas system	Responsibility: Landfill operator Timing: Prior to filling new cells	Responsibility: San Joaquin Valley Air Pollution Control District; San Joaquin County Environmental Health Department Timing: Prior to approval of filling of new cells	
	Continue existing landfill gas system	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
	Landfill gas monitoring	Responsibility: Landfill operator Timing: Monthly	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Quarterly	
	Structures to avoid landfill gas buildup	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Train employees in landfill gas monitoring/alarm system	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
42. (E.4)	Landfill gas monitoring to include VOCs	Responsibility: Landfill operator Timing: Monthly	Responsibility: San Joaquin Valley Air Pollution Control District Timing: Monthly	
43. (Forward 2002 E.5)	*Updated post-closure permit for WMU-A*	*Responsibility: Landfill operator* *Timing: Letters from DTSC and US EPA approving post-closure permit shall be included with the Improvement Plan*	*Responsibility: San Joaquin County Community Development Department, California DTSC, and US EPA* *Timing: Prior to approval of Improvement Plan*	
44.	Daily cover	Responsibility: Landfill operator Timing: Daily	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
Ban intact tires and large dead animals	Responsibility: Landfill operator Timing: During inspection of incoming loads	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Bird control measures	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Monitor vectors	Responsibility: Landfill operator Timing: Monthly	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
45.(E.6) Conform to regulations	Responsibility: Landfill operator Timing: Throughout life of project	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Site procedures for hazardous materials	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
46. (Forward 2002 E.8)			
Monitor water wells	*Responsibility: Landfill operator* *Timing: Quarterly*	*Responsibility: RWQCB* *Timing: Quarterly*	
Notify landowners	*Responsibility: San Joaquin County Environmental Health Department* *Timing: Upon receipt of application for new well*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: Upon receipt of application for new well*	
47. Austin 1994 (L2.b) (updated), Austin 2000 (L2.b)			
Household Hazardous Waste Program	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: Annually*	
48. Forward 1993 (A.5)			
Hydrants and water source	*Responsibility: Landfill operator* *Timing: Water source shall be shown on*	*Responsibility: San Joaquin County Environmental Health Department*	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
	Improvement Plan	*Timing: Prior to approval of Improvement Plan*	
49. Forward 1993 (A.11) Balance ash control and leachate generation	*Responsibility: Landfill operator Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits*	
F. HYDROLOGY AND WATER QUALITY			
50. Calculate 1000-year/ 24-hour storm discharges and design facilities accordingly	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
Separate waste from Littlejohns Creek with levees	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
Channel reconfig-uration and berms	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
Replacement floodplain	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
Channel and floodplain design	Responsibility: Landfill operator Timing: Letters from RWQCB and CalRecycle shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
51. Structural erosion controls,	Responsibility: Landfill operator Timing: included with the Improvement Plan;	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
Monitoring and corrective actions	Responsibility: Landfill Operator Timing: ongoing	Responsibility: RWQCB Timing: Annually	
Operational erosion	Responsibility: Landfill operator	Responsibility: RWQCB	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
	controls	Timing: Ongoing	Timing: Annually	
	Revegetation	Responsibility: Landfill operator Timing: Upon completion of cells	Responsibility: RWQCB Timing: Annually	
52.	Pan lysimeter under sump area	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
	Liner and leachate collection system design and installation	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to issuance of Waste Discharge Requirements (WDRs)	
	Separation between liner and groundwater	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
	RWQCB required changes	Responsibility: Landfill operator Timing: As required by RWQCB	Responsibility: RWQCB Timing: As required by RWQCB Modifications to LCRS	
	Operations layer over liner	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
	Remove hazardous materials prior to delivery	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: Periodic inspections	
	Identify and correct failures in LCRS	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: Periodic inspections	
	Review and approve updated JTD	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
53.	Engineering leachate controls	Responsibility: Landfill operator Timing: Letter from RWQCB shall be	Responsibility: RWQCB Timing: Prior to approval of	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
		included with the Improvement Plan	Waste Discharge Requirements (WDRs)	
	Leachate monitoring	Responsibility: Landfill operator Timing: Daily	Responsibility: RWQCB, DTSC Timing: Quarterly	
	Leachate reporting/ Institutional controls	Responsibility: Landfill operator Timing: Quarterly	Responsibility: RWQCB, DTSC Timing: Quarterly	
	Landfill cell anchor trenches	Responsibility: Landfill operator Timing: included with the Improvement Plan	Responsibility: RWQCB Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
54.	Creek channel improvements	Responsibility: Landfill operator. Timing: included with Creek Relocation Plan	Responsibility: County Public Works Department, CDFW, RWQCB Timing: Prior to approval of Landfill Design Plans	
55.	Design for interface at expansion cells	Responsibility: Landfill operator Timing: Letter from RWQCB shall be included with the Improvement Plan	Responsibility: RWQCB and CalRecycle Timing: Prior to approval of Waste Discharge Requirements (WDRs)	
	Design liner for differential settlement	Responsibility: Landfill operator Timing: Prior to submission of Landfill Design Plans	Responsibility: RWQCB and CalRrecycle Timing: Prior to approval of Landfill Design Plans	
	Review liner design in JTD update	Responsibility: Landfill operator Timing: Prior to submission of Landfill Design Plans	Responsibility: RWQCB and CalRecycle Timing: Prior to approval of Landfill Design Plans	
56.	Supply residents with bottled water	Responsibility: Landfill operator Timing: Ongoing – deliveries biweekly	Responsibility: County Environmental Health Department Timing: Ongoing	
	Municipal supply line will serve CYA	Responsibility: CYA Timing: Ongoing	Responsibility: County Environmental Health Department Timing: Ongoing	
	Sample additional off-site wells	Responsibility: Landfill operator Timing: At least twice a year	Responsibility: RWQCB Timing: At least twice a year	
	Remediation measures	Responsibility: Landfill operator Timing: Ongoing	Responsibility: RWQCB Timing: Upon submittal of engineering study; then Quarterly	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
57.	Recharge of treated groundwater	Responsibility: Landfill operator Timing: Ongoing	Responsibility: RWQCB Timing: Quarterly	
58.	Implement construction BMPs for creek Realignment	Responsibility: Landfill operator Timing: During creek channel construction	Responsibility: County Public Works Department Timing: During creek channel construction	
59.	*Forward 2002 (F.4)* *Continue monitoring of leachate controls*	*Responsibility: Landfill operator* *Timing: As required by RWQCB*	*Responsibility: RWQCB* *Timing: As determined by RWQCB*	
60.	*Forward 2002 (F.9)* *Replace groundwater monitoring wells*	*Responsibility: Landfill operator* *Timing: As required by RWQCB*	*Responsibility: RWQCB* *Timing: As determined by RWQCB*	
61.	*Austin 1994 (K3.c), Austin 2000 (K3.c)* *Timing of discharge of detention pond*	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: RWQCB* *Timing: Annually*	
62.	*Austin 1994 (K5.e), Austin 2000 (K5.e)* *Salvage metallic discards (AB 1760)*	*Responsibility: Landfill operator* *Timing: Prior to approval of Solid Waste Facilities Permit (SWFP)*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: Prior to Approval of Solid Waste Facilities Permit (SWFP)*	
63.	*Forward 1993 (C3)* *Secondary containment for diesel fuel*	*Responsibility: Landfill operator* *Timing: Secondary containment shall be shown on Improvement Plan*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: During monthly site visits*	
G. SOILS AND GEOLOGY				
64. Forward 2013(G.2)	Seismic design requirements of Title 27	Responsibility: Landfill operator Timing: Letters from RWQCB and CalRecycle approving seismic design shall be included with the Improvement Plan	Responsibility: RWQCB and CalRecycle Timing: Prior to issuance of Waste Discharge Requirements (WDRs) and Solid Waste Facilities Permit (SWFP)	
65. Forward 2013 (G.3)				

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
Implement erosion management plan	Responsibility: Landfill operator Timing: Daily	Responsibility: RWQCB Timing: Annually	
Revegetate completed cells	Responsibility: Landfill operator Timing: Upon completion of each cell	Responsibility: RWQCB Timing: Annually	
Erosion controls on temporary slopes	Responsibility: Landfill operator Timing: Upon construction of temporary slopes	Responsibility: RWQCB Timing: Annually	
Monitoring of erosion control measures	Responsibility: Landfill operator Timing: Daily, and for at least five years after closure of cells	Responsibility: RWQCB Timing: Annually, for at least five years after closure of cells	
66. Forward 1993 (B.5) *Assess groundwater level after earthquake*	*Responsibility: Landfill operator* *Timing: Within 24 hours of earthquake of V or greater*	*Responsibility: RWQCB* *Timing: Within 24 hours of earthquake of V or greater*	
67. Forward 1993 (B.6) *Benchmarks to monitor settlement*	*Responsibility: Landfill operator* *Timing: Benchmarks shall be indicated on Improvement Plan; quarterly monitoring*	*Responsibility: RWQCB* *Timing: Annually*	
H. BIOLOGICAL RESOURCES			
68. (F.1) Wetland permits and creek mitigation plan	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Community Development Department (CDD) Timing: Prior to approval of Improvement Plan *Plan*	
69. (F.2.1) Protect aquatic vertebrates from stranding	Responsibility: Landfill operator Timing: During creek relocation	Responsibility: San Joaquin County CDD Timing: Ongoing during creek relocation	
70. (F.2.2) Gradual release of creek water	Responsibility: Landfill operator Timing: Upon completion of channel construction	Responsibility: San Joaquin County CDD Timing: Upon completion of channel construction	
71. (F.3) Giant garter snake	Responsibility: Landfill operator	Responsibility: San Joaquin County CDD, SJMSCP staff	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
protection	Timing: During initial landfill construction and creek relocation	Timing: Ongoing during initial landfill construction and creek relocation	
72. (F.4) Pacific pond turtle protection	Responsibility: Landfill operator Timing: During initial landfill construction and creek relocation	Responsibility: San Joaquin County CDD, SJMSCP staff Timing: Ongoing during initial landfill construction and creek relocation	
73. (F.5a) SJMSCP-covered birds protection	Responsibility: Landfill operator Timing: During initial landfill construction and creek relocation	Responsibility: San Joaquin County CDD, SJMSCP staff Timing: Ongoing during initial landfill construction and creek relocation	
74. (F.5b) SJMSCP-covered Bird monitoring	Responsibility: Landfill operator Timing: During initial landfill construction and creek relocation	Responsibility: San Joaquin County CDD, SJMSCP staff Timing: Ongoing during initial landfill construction and creek relocation	
75. (F.6) SJMSCP-covered birds nesting surveys/mitigation	Responsibility: Landfill operator Timing: During initial landfill construction and creek relocation	Responsibility: San Joaquin County CDD Timing: Ongoing during initial landfill construction and creek relocation	
76. (F.8) Swainson's Hawk habitat replacement	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County CDD Timing: Prior to approval of Improvement Plan	
77. (F.10) Review guidelines for rodenticides	Responsibility: Landfill operator Timing: Biologist's report and recommendations on rodenticides shall be included in the Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of the Improvement Plan	
78-84. Superseded by 73-77, above.			
85. (H.9) Sodium lamps with sharp cutoff angles per SJMSCP	Responsibility: Landfill operator Timing: The lamp design shall be included in the Improvement Plan	Responsibility: San Joaquin County Community Development Department Timing: Prior to approval of the Improvement	
86. Superseded by Mitigation 77, above.			
87. *Austin 1994 (F2.a) (similar), Austin 2000 (F2.a)* *Retain 31 of 32 valley oaks*	*Responsibility: Landfill operator* *Timing: Preservation of oaks to be*	*Responsibility: San Joaquin County Community Development Department*	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
	included in the Improvement Plan	*Timing: Prior to approval of the Improvement Plan*	
88. Austin 1994 (F2.b) (similar), Austin 2000 (F2.b)			
Temporary fencing for valley oaks	*Responsibility: Landfill operator* *Timing: Throughout construction*	*Responsibility: San Joaquin County Community Development Department* *Timing: Monthly during construction period*	
89. Austin 1994 (F2.c) (similar), Austin 2000 (F2.c)			
Replacement of valley oaks	*Responsibility: Landfill operator* *Timing: Prior to issuance of Improvement Plan*	*Responsibility: San Joaquin County Community Development Department* *Timing: Prior issuance of business license*	
90. Austin 1994 (F2.d) (similar), Austin 2000 (F2.d)			
Monitoring of replaced valley oaks	*Responsibility: Landfill operator* *Timing: Annually, for five years*	*Responsibility: San Joaquin County Community Development Department* *Timing: Annually, for five years* *Improvement Plan*	
91. Austin 2000 (F14.a)			
Pre-construction surveys for mastiff bat	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	
92. Austin 2000 (F14.b)			
Mastiff bat mitigation	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	
93. Austin 2000 (F14.c)			
Mastiff bat habitat Replacement	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	*Responsibility: San Joaquin Council of Governments* *Timing: As determined by San Joaquin Council of Governments*	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
I. PUBLIC SERVICES AND UTILITIES			
94. (I.1) Site security	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Restricted areas	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Perimeter barrier	Responsibility: Landfill operator Timing: Design of perimeter barrier shall be included in the Improvement Plan	Responsibility: San Joaquin County Community Development Department Timing: Prior to approval of the Improvement Plan	
Identify hazardous materials	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
Lockable entrance gate	Responsibility: Landfill operator Timing: Design of lockable gate shall be included in the Improvement Plan	Responsibility: San Joaquin County Community Development Department Timing: Prior to approval of the Improvement Plan	
Prohibit salvaging	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
95. (I.2) Continue fire procedures	Responsibility: Landfill operator Timing: Ongoing	Responsibility: Lathrop-Manteca Fire District Timing: Annually	
Inform Fire District	Responsibility: Landfill operator Timing: Letter from Fire District approving landfill fire suppression procedures shall be included in the Improvement Plan	Responsibility: Lathrop-Manteca Fire District/San Joaquin County Community Development Department Timing: Prior to approval of the Improvement Plan	
96. (I.3) Continue safety	Responsibility: Landfill operator	Responsibility: San Joaquin County	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
	procedures	Timing: Throughout life of project	Environmental Health Department Timing: During monthly site visits	
	Inform Fire District	Responsibility: Landfill operator Timing: Letter from Fire District approving landfill safety procedures shall be included in the Improvement Plan	Responsibility: Lathrop-Manteca Fire District/San Joaquin County Community Development Department Timing: Prior to approval of the Improvement Plan	
	Monthly safety inspections	Responsibility: Landfill operator Timing: Monthly	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Employee safety meetings	Responsibility: Landfill operator Timing: Daily	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
	Personal protective gear	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits	
97. (I.4)	Test leachate	Responsibility: Landfill operator Timing: Before delivery to Wastewater Control Facility	Responsibility: City of Stockton Municipal Utilities Department Timing: Before acceptance of leachate	
	Treat or dispose leachate offsite	Responsibility: Landfill operator Timing: Operator to notify RWQCB if and when required	Responsibility: RWQCB Timing: If and when required	
J. CULTURAL RESOURCES				
98. (J.1)	Archaeological monitor of excavation of new creek channel along southern border	Responsibility: Landfill operator Timing: During all earth-disturbing activities at new creek channel	Responsibility: San Joaquin County Community Development Department Timing: During all earth-disturbing activities at new creek channel	
	Assess and mitigate cultural resources	Responsibility: Landfill operator Timing: If and when cultural resources discovered	Responsibility: San Joaquin County Community Development Department Timing: If and when cultural resources discovered	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
Appropriate treatment of human remains	Responsibility: Landfill operator San Joaquin County Coroner, Native American Heritage Commission Timing: If and when human remains discovered	Responsibility: San Joaquin County Coroner Timing: If and when human remains discovered	
K. VISUAL QUALITY			
99. (K.3) Native/drought-tolerant landscaping	Responsibility: Landfill operator Timing: When cells are completed or held inactive for more than six months	Responsibility: San Joaquin County Community Development Department Timing: Annually	
Minimize working face	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Community Development Department Timing: Annually	
Native grasses and wildflowers on slopes	Responsibility: Landfill operator Timing: When cells are completed or held inactive for more than six months	Responsibility: San Joaquin County Community Development Department Timing: Annually	
Plant native grasses upon closure	Responsibility: Landfill operator Timing: Upon closure	Responsibility: San Joaquin County Community Development Department Timing: Prior to finalizing closure plan	
100. (K.5) Prohibit reflective surfaces	Responsibility: Landfill operator Timing: Prior to construction of additional structures	Responsibility: San Joaquin County Community Development Department Timing: Prior to issuance of building permit	
Earthtone colors on buildings	Responsibility: Landfill operator Timing: Colors shall be specified in Improvement Plan and building permits	Responsibility: San Joaquin County Community Development Department Timing: Prior to issuance of building permits	
101. Forward 2002 (K.4) (first paragraph implemented)			
~~*Screening vegetation along Austin Road*~~	~~*Responsibility: Landfill operator Timing: Vegetation plan shall be*~~	~~*Responsibility: San Joaquin County Community Development Department*~~	

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
		~~*included in the Improvement Plan; vegetation to be planted prior to issuance of Improvement Plan*~~	~~*Timing: Vegetation plan shall be included in the Improvement Plan; vegetation to be planted prior to issuance of Improvement Plan*~~	
	Temporary screens along Austin Road	*Responsibility: Landfill operator* *Timing: As required*	*Responsibility: San Joaquin County Community Development Department* *Timing: As required*	
102. Austin 1994 (B3.d), Austin 2000 (B3.d)	*Additional lighting to be reviewed by Women's Facility*	*Responsibility: Landfill operator* *Timing: Prior to approval of additional lighting*	*Responsibility: San Joaquin County Community Development Department* *Timing: Prior to approval of additional lighting*	
103.	Daily litter inspection	Responsibility: Landfill operator Timing: Daily	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
	Cover loads with tarps	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
	Minimize working face	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
	Orient working face to minimize wind effects	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Community Development Department Timing: On a complaint basis	
	Special handling of waste susceptible to wind	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Community Development Department Timing: On a complaint basis	
	Portable litter fences	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
		Timing: During monthly site visits, and on a complaint basis	
Semi-permanent fences	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Permanent litter fences	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Procedures for very windy days	Responsibility: Landfill operator Timing: Ongoing	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Buffer zones	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan	
Personnel to collect litter that has escaped above control measures	Responsibility: Landfill operator Timing: As needed	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Use of portable lifts to collect litter in trees	Responsibility: Landfill operator Timing: As needed	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Portable lifter vacuums To collect litter on fence	Responsibility: Landfill operator Timing: As needed	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Inspection of highway leading to landfill	Responsibility: Landfill operator Timing: Weekly	Responsibility: San Joaquin County Environmental Health Department	

Mitigation Measure Comments	Implementation	Monitoring	Implementation Confirmation
		Timing: During monthly site visits, and on a complaint basis	
Collection of litter on highway	Responsibility: Landfill operator Timing: As needed	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
Before and after photos	Responsibility: Landfill operator Timing: As needed	Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis	
~~Provide phone numbers to community/neighbors~~	~~Responsibility: Landfill operator Timing: If requested~~	~~Responsibility: San Joaquin County Environmental Health Department Timing: During monthly site visits, and on a complaint basis~~	
Fund signage along Austin, Arch, French Camp Roads	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan	
24-hour Litter Hotline	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan	
Litter Control Fund Manager position	Responsibility: Landfill operator Timing: Prior to approval of Improvement Plan	Responsibility: San Joaquin County Environmental Health Department Timing: Prior to approval of Improvement Plan	
Purchase additional Portable litter fencing	Responsibility: Landfill operator Timing: Prior to approval of	Responsibility: San Joaquin County Environmental Health Department	

104. Same as D.1, above.

105. (Austin 1994 (B5.c), Austin 2000 (B5.c)

Mitigation Measure	Comments	Implementation	Monitoring	Implementation Confirmation
	Limit dumping height of trucks	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: During monthly site visits*	
106.	*Austin 1994 (B5.e), Austin 2000 (B5.e)*			
	Routine road maintenance	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: During monthly site visits*	
107.	*Austin 1994 (B5.f), Austin 2000 (B5.f)*			
	Minimize unvegetated Area	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: During monthly site visits*	
108.	*Austin 1994 (B5.g), Austin 2000 (B5.g)*			
	Alternative daily covers to reduce dust	*Responsibility: Landfill operator* *Timing: Ongoing*	*Responsibility: San Joaquin County Environmental Health Department* *Timing: During monthly site visits*	

ATTACHMENT 3: VERIFICATION REPORT FORM

VERIFICATION REPORT

Date:_____ Arrival Time:_____ Departure:_____

Location:_____

_____

_____

_____

Construction Sheet No.:_____

Discipline:

☐ Archaeology ☐ Dust/Air Quality

☐ Biology ☐ Noise

☐ Soils/Geology

☐ Other_____

Condition:_____

Compliance: ☐ Acceptable ☐ Unacceptable ☐ Delay Activity

☐ Remedial Action Implemented

☐ Work Stop

☐ Follow-up Conference Required

Activity:_____

_____

_____

Observations:_____

_____

_____

Recommendations:_____

_____

By:_____Report Approval:_____

Receipt by Project Supervisor:

Signature:_____Date:_____Time:_____

Comments/Actions:_____

_____

_____

Copies to:_____

Date Entered to Environmental Monitoring File:_____

By:_____