CHAPTER 4
IMPACT OVERVIEW

4.1 GROWTH-INDUCING EFFECTS OF THE PROPOSED PROJECT

4.1.1 INRODUCTION

Section 15126.2(e) of the *California Environmental Quality Act* (*CEQA) Guidelines* requires that an EIR discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. This discussion should include an analysis of how the proposed project might remove barriers to population growth and characteristics of the project that might encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. In discussing potential growth it should not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a public service that otherwise limits growth.

The *CEQA Guidelines* further explains that the environmental effects of induced growth may be indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected, would exceed available services, or otherwise result in an identifiable secondary impact as discussed above. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service and solid waste service.

Components of Growth

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Since the general plan of a community, including an unincorporated area of a county, defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in California.

4.1.2 GROWTH EFFECTS OF THE PROJECT

The Project consists of several changes to Yolo County Central Landfill's (YCCL's) existing operations. The Project would probably result in an increase in YCCL staff to accommodate the development of Project elements. The Project probably would not attract housing or commercial development to the Project vicinity. Few people choose to work or live in close proximity to an active sanitary landfill. Furthermore, the Project vicinity is primarily agricultural.

The Project would not directly or indirectly remove barriers to population growth and/or encourage and facilitate other activities that could significantly affect the environment. Since there is sufficient landfill capacity throughout the region, and since the availability of landfill capacity is not frequently cited as a constraint to the development of new housing or commercial areas, the Project is not anticipated to induce additional growth in the region. Further, the Project would not involve expansion or extension of infrastructure outside of the footprint of the landfill or expansion or extension of roadways that could induce unplanned growth adjacent to the landfill.

4.2 CUMULATIVE IMPACTS

4.2.1 INTRODUCTION

The *CEQA Guidelines* (Section 15355) define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." This section of the *CEQA Guidelines* further notes that:

a) *The individual effects may be changes resulting from a single project or a number of separate projects.*

b) *The cumulative impact from several projects is the change in the environment, which results in the incremental impacts of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

2030 Countywide General Plan

The 2030 Countywide General Plan provides for the long-range direction and development of land within the County. The land surrounding YCCL is utilized for either agricultural activities or wastewater treatment operations. The existing landfill site is designated as "Public and Quasi-

Public" (PQ) while the majority of the land around the site is designated as "Agriculture" (AG), with the exception of the adjacent borrow site and Davis Wastewater Treatment Plant, which are also designated PQ.

Projects Potentially Having Related or Cumulative Effects

There are no planned or approved development projects in the vicinity of YCCL. Therefore, there are no local projects that could have the potential to combine with the Project to create cumulative effects.

On-site Projects Potentially Having Cumulative Effects

In addition to off-site projects, previously permitted projects at YCCL that could contribute to cumulative impacts include the project evaluated in the 2005 YCCL EIR.

4.2.2 CUMULATIVE IMPACT DISCUSSION

Aesthetics

Cumulative aesthetics impacts are limited to the immediate project vicinity. The Project would not result in significant and unavoidable impacts to aesthetics. The Project would introduce new sources of light and glare at the Project site, which would combine with existing sources of light and glare at YCCL. However, the implementation of mitigation measures identified in Section 3.1 and adherence to the General Plan and County Code would ensure the Project would not result in a significant cumulative aesthetics impact.

Air Quality

Cumulative air quality impacts are limited to the region (for regional pollutants) and the immediate project vicinity (for localized pollutants). The Project would not result in significant and unavoidable impacts on air quality.

Regional Air Pollutants

With respect to regional pollutants, the Yolo-Solano Air Quality Management District's (YSAQMD's) *Handbook for Assessing and Mitigating Air Quality Impacts* states that project emissions that are not consistent with the Air Quality Attainment Plan, State Implementation Plan, or exceed YSAQMD thresholds will have a significant cumulative impact unless offset (YSAQMD, 2007). Mobile sources associated with construction and operation of the Project would not exceed the YSAQMD's significance thresholds with the implementation of mitigation measures identified in Section 3.3. Stationary sources would be subject to YSAQMD's permitting requirements and, per YSAQMD's *Handbook for Assessing and Mitigating Air Quality Impacts*, stationary sources complying with applicable YSAQMD regulations pertaining to Best Available Control Technology (BACT) and offset requirements are not considered a significant impact to air quality. Therefore, the Project would not result in significant cumulative air quality impacts within the region.

Localized Air Pollutants

With respect to localized pollutants, the Project would allow for more waste processing at YCCL which would create more sources of potential odors. However, the YCCL has not had any odor complaints or violations in the past five years and the Project elements would provide more options for processing organics, wood waste, and liquid waste at YCCL in a timely manner and would reduce the amount of waste that is buried at the active face, which would help reduce the likelihood of potential odor impacts at YCCL. Mobile sources associated with increased heavy truck trips which emit toxic air contaminants (TACs) would result in health impacts below YSAQMD significance thresholds. Stationary sources of TACs require a permit from the YSAQMD and would not be permitted if they do not comply with YSAQMD regulations and health risk thresholds during air quality permitting. Therefore, the Project would not result in significant cumulative air quality impacts within the immediate vicinity of the Project.

Biological Resources

Cumulative biological resources impacts are limited to the region. The Project would not result in significant and unavoidable impacts on biological resources. The implementation of mitigation measures in Section 3.4 would ensure that the Project does not have a considerable contribution to regional cumulative impacts on biological resources. Those mitigation measures include a measure to compensate for loss of Swainson's hawk foraging habitat by participating in the Yolo HCP/NCCP. Therefore, the Project would not result in significant cumulative biological resources impacts.

Cultural and Tribal Cultural Resources

Cumulative cultural and tribal cultural resources (TCRs) impacts are limited to the region. The Project would not result in significant and unavoidable impacts to cultural and TCRs. The implementation of mitigation measures identified in Section 3.5 would ensure that the Project would not have a considerable contribution to regional impacts on cultural and TCRs. Therefore, the Project would not result in significant cumulative cultural and TCRs impacts.

Energy

Cumulative energy impacts are limited to the region and the state. The Project would not result in significant and unavoidable impacts to energy resources. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Furthermore, the Project would not conflict with any state or local plans for renewable energy. Therefore, the Project would not result in a considerable contribution to regional or statewide cumulative impacts to energy and would not result in significant cumulative energy impacts.

Geology, Soils and Seismicity

The Project would not result in significant and unavoidable impacts to geology and soils. The Project area is not within a seismically active region, but the region has a wide range of geologic and soil conditions, which can vary greatly within a short distance. Accordingly, geologic, soils, and seismic impacts tend to be site-specific and depend on the local geology and soil conditions. For these reasons, the geographic scope for cumulative impacts of geology, seismic hazards, and soil

resources is contained within the boundaries of the YCCL property, specifically the area supporting the Project elements. The temporal scope for the cumulative analysis extends from Project initiation to build out.

Significant cumulative impacts occur only if the incremental impacts of the Project, combined with the incremental impacts of a cumulative project, within the defined geographic scope, increases the potential that people or the environment could be exposed to hazards associated with geologic or seismic conditions. This condition would not be met for seismic and geologic impacts because if there were impacts within the confines of the YCCL facility, they would not affect areas outside the YCCL property and thus, could not combine with incremental impacts of other regional projects. For example, an unstable soil condition (e.g., expansive soils) specific to the YCCL would not combine with or worsen regional soil instability; the condition would be site specific and be corrected as necessary on the Project site. Similarly, impacts associated with seismic hazards on the Project site (e.g., liquefaction, settlement) may be similar at other sites during an earthquake but the cumulative effect would not increase liquefaction hazards regionally. In the case of the YCCL facility, potential seismic and geologic hazards would be identified and corrected, as required, prior to construction and thus the Project would not contribute cumulatively to a regional geologic and seismic hazard and would be less than significant and not cumulatively considerable.

Paleontological Resources

The Project could result in a significant paleontological resources impact during the development and operation of the non-specific future off-site borrow area depending on whether it is in an area with high, moderate, and unknown potential for paleontological resources. If the future off-site borrow area did occur in a paleontological sensitive area and fossil remains were encountered, implementation of mitigation in presented in Section 3.9 would reduce the potential loss of paleontological resources and result in the recovery of fossil remains. Therefore, the Project would not contribute to a regional loss of paleontological resources and would be less that significant and not cumulatively considerable.

Greenhouse Gas Emissions

The greenhouse gas (GHG) emissions impact analysis in Section 3.7 is inherently a cumulative impact analysis because GHG emissions are a global pollutant. As presented in Section 3.7, the Project would not conflict with California Air Resource Board's (CARB's) 2017 Scoping Plan because the Project elements would increase waste diversion and efficiency at YCCL and generate significant renewable energy and fuel resources. The Project would provide significant GHG reduction benefits and would help the State achieve mandates for diverting organics from landfills, and renewable electricity and fuels. Therefore, the Project would not result in significant cumulative GHG emissions impacts.

Hydrology and Water Quality

The geographic scope for assessing potential cumulative hydrology and water quality impacts consists of the Project site and surrounding lands within the Tule Canal-Toe Drain watershed that discharge to Willow Slough Bypass. As discussed in Section 3.10, the Project would not result in Project-specific significant impacts associated with hydrology and water quality. Continued

implementation of mitigation measures adopted in the Mitigation Monitoring and Reporting Program (MMRP) associated with the 2005 YCCL Subsequent Environmental Impact Report (SEIR) would, in combination with regulatory requirements, reduce all impacts identified for the Project to a less-than-significant level. Additionally, the adopted mitigation measures from the 2005 YCCL SEIR will continue to reduce all previously identified impacts in the 2005 YCCL SEIR to a less-than-significant level. As described below, the Project would not result in or contribute to cumulative impacts; cumulative impacts to hydrology and water quality would be mitigated on a project-by-project level in accordance with applicable regulatory requirements, and through the established regulatory review process.

The analysis of cumulative impacts considers that all future development with the potential to impact hydrology and water quality would be required to demonstrate compliance with applicable federal and state regulatory requirements, which are intended to reduce and/or avoid potential adverse environmental effects on surface and groundwater resources as a result of multiple actions, such as development projects within a watershed and associated direct or indirect discharges to receiving waters. Through implementing regulatory water quality and stormwater management requirements, surface water, groundwater, and aquatic habitats are protected from potential sources of degraded water quality, increased flow rates, and runoff volumes, which can result in downstream erosion, sedimentation, and other water quality and quantity impacts to a watershed system.

Construction of the Project would include preparation of a construction Stormwater Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) required under the Construction General Permit (CGP) as well as the SWPPP (Order 2014-0057-DWQ) covering operations and maintenance activities associated with the YCCL Industrial (National Pollutant Discharge Elimination System) NPDES Permit. Additionally, the Project would be required to adhere to provisions of the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDRs) and associated Monitoring and Reporting Program (MRP) for the landfill site. The Project includes a stormwater management system which includes a series of drains, swales, conveyance pipes, and sediment ponds to treat stormwater (i.e., capture sediment) as well as use of existing outfall structures (i.e., no outfalls constructed as part of the Project) for stormwater discharges offsite that are designed and armored sufficiently to dissipate energy of discharges, avoid scour of the channel bed and bank, and avoid or minimize erosion and sedimentation in Willow Slough Bypass. Stormwater would be retained onsite in retention ponds, treated (such as through use of bioswales and floc logs) for boron and other pollutants, consistent with NPDES discharge requirements, and tested prior to release to ensure receiving water quality and beneficial uses are not degraded and/or impaired and that Basin Plan Water Quality Objectives are met. Implementation of the Project would not substantially increase the rate or amount of peak runoff discharged offsite to Willow Slough Bypass in a manner that would result in hydromodification impacts, increase flooding or flood risks, erosion, and/or sedimentation on- or off-site, or reduce groundwater recharge as stormwater would be retained on site in retention ponds and periodically discharged as managed flow in order to regain storage capacity or to mitigate a rise in groundwater elevation. Releases may also occur when storage capacity is exceeded, although the stormwater control system is sized to accommodate the 100-year, 24-hour storm event (Golder, 2021).

As discussed in Section 3.10.1, Willow Slough Bypass is listed as an impaired water body for boron, E. Coli, and fecal coliform (SWRCB, 2010). Prior to issuance of any NPDES permits for construction activities, operational discharges, or licenses, a review and authorization process by the RWQCB is required to ensure such permits and licenses are protective of designated beneficial uses and water quality and that water quality issues, such as impairments for boron and/or other pollutants are addressed in discharge Water Quality Protection Standards (WQPS) or discharge requirements and that Total Maximum Daily Load (TMDL) requirements are incorporated as permit conditions in a manner consistent with relevant plans, policies, and guidelines.

With adherence to the described regulatory requirements, as well as implementation of mitigation requirements under the existing MMRP associated with the 2005 YCCL SEIR, the effects of the Project would not combine with those of ongoing YCCL operations or other cumulative projects in the area to cause a cumulatively significant impact related to water quality, increased soil erosion and sedimentation, alterations to drainage patterns, or inadvertent releases of water quality pollutants. With implementation of regulatory requirements (see Impact 3.10.7), facilities would be protected from future flooding and flood hazards and impacts would be less than significant. Therefore, no cumulatively significant effect to surface water or groundwater quality or hydrology would occur, and the Project would not have a cumulatively considerable contribution to a significant cumulative effect.

Land Use, Planning and Agricultural Resources

Land Use, Planning and Agricultural impacts are limited to the region. The EIR for the 2030 Countywide General Plan discusses the cumulative impacts of agricultural lands being converted to non-agricultural uses. The EIR concluded that the cumulative impact would be significant and unavoidable. The EIR stated:

> "The cumulative amount of agricultural lands that would be lost as a result of development through 2030 would be those lands contained within the urban growth boundaries, plus open space and trail conversions which the County has calculated to be 9,072 acres. While loss of agricultural land would not extend beyond this amount within the County, neighboring counties would also continue to lose agricultural land due to development in rural regions and urban fringe development, which would add to the cumulative conversion of agricultural lands in the region. As such, the cumulative loss of agricultural lands across the region would be significant.
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> Implementation of mitigation measures in Section IV.B, Agricultural Resources, would minimize Yolo County's contribution to cumulative agricultural impacts, but would not reduce them to less-than-significant levels. Consequently, cumulative impacts of agricultural land conversion are considered significant and unavoidable."

Since most of the non-urban land within the radius of the Project site is agricultural land, use of the off-site borrow area would most likely result in conversion of prime or non-prime agricultural farmland to a non-agricultural use. This would be a significant, unavoidable impact of the Project (see Impact 3.2.2 and Mitigation Measure 3.2.2). Consistent with the conclusion in the 2030 Countywide General Plan, use of soil from the off-site borrow area would contribute to the cumulative loss of agricultural lands in the County and across the region and would be a significant cumulative impact.

Noise

Noise impacts are limited to immediate vicinity of the Project. The Project would not result in significant and unavoidable impacts to noise. The mitigation measures in Section 3.12 would ensure that the Project would not have a considerable contribution to noise impacts in the immediate vicinity of the Project. There are no other major noise sources in the vicinity of YCCL, other than typical agricultural operations, that would contribute to a cumulative ambient noise impact. Therefore, the Project would not result in significant cumulative noise impacts.

Public Services, Utilities and Service Systems

Public services, utilities, and service systems impacts are limited to the region. The Project would not result in significant and unavoidable impacts to public services, utilities, and service systems. Implementation of the mitigation measures identified in Section 3.14 would reduce the risk of fire and thus the potential need for fire protection services to a less-than-significant level. Thus, the Project would not contribute to a cumulative impact on public services, utilities, and service systems. Therefore, the Project would not result in significant cumulative impacts to public services, utilities, and service systems.

Public Health and Safety

Public health and safety impacts are limited to the immediate vicinity of the Project. The Project would not result in significant and unavoidable impacts to public health and safety. Implementation of mitigation measures identified in Section 3.8 would ensure that the Project would not have a considerable contribution to public health and safety impacts in the immediate vicinity of the Project. Therefore, the Project would not result in significant cumulative impacts to public health and safety.

Transportation

Transportation impacts are limited to the region. The Project would not result in significant and unavoidable impacts to transportation. The Project is below the vehicle miles traveled (VMT) screening criteria provided in the California Governor's Office of Planning and Research (OPR) document Technical Advisory on Evaluating Transportation Impacts in CEQA and the Project's VMT impacts would be less than significant. Therefore, the Project would not result in significant cumulative transportation impacts.

Wildfire

Wildfire impacts are limited to the region. The Project would not result in significant and unavoidable impacts to wildfire. The Project is not located in an area classified as Very High Fire Hazard Severity Zones (VHFHSZ) and would not increase risk of wildfire through the implementation of existing fire control and suppression measures at YCCL. The Project would not have a considerable contribution to regional cumulative impacts on wildfire. Therefore, the Project would not result in significant cumulative wildfire impacts.

4.3 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

The Project could result in conversion of farmland (including Prime Farmland, and non-prime farmland mapped as Unique Farmland or Farmland of Statewide Importance) to non-agricultural use. This would be a significant and unavoidable project impact and a significant cumulative impact of the Project.

4.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The Project could potentially result in an inappropriate use of prime agricultural farmland for the future off-site borrow area. If in the future a parcel designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is used for the off-site borrow area, the loss of the agricultural farmland would be a significant irreversible environmental change.

Most of the air quality and GHG emissions – those related to increased daily tonnage limits or implementation of the transfer station for hauling to other landfills – would cease when or soon after landfill operations and transfer stations would cease. The landfill gas emissions, especially those related to fugitive landfill gas emissions, would decrease over time. None of the other impacts of the project are expected to result in irreversible environmental changes.

4.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

4.5.1 MINERAL RESOURCES

The Project would not affect mineral resources or result in the loss of any mineral resource of local or statewide importance. Therefore, the Project would not affect mineral resources.

4.5.2 POPULATION AND HOUSING

The Project would not result in displacement of existing housing or induce population growth. As stated above, the YCCL would create employment opportunities, however, the Project is not anticipated to induce additional growth in the region. The facility could employ approximately 30 full time employees and some of these employees may move to the region because of specialized skills. Other jobs would likely be filled by existing residents in the region. The addition of perhaps 10-15 employees (and families) moving to the region would not substantially affect population and housing.

4.5.3 RECREATION

The Project would only affect recreation areas if the County sites the non-specific future off-site borrow area in an area close to recreational uses, which is not expected based on the location of YCCL. There are no recreational facilities in the vicinity of YCCL that would be affected by the Project. Therefore, the Project would not affect recreation.

4.6 REFERENCES

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