

4. Approach

This chapter provides additional information regarding the history and details of various approaches taken in this Environmental Impact Report (EIR). Section 4.1 explains the process by which the Western Placer Waste Management Authority (WPWMA) Board chose to evaluate two plan concepts to implement the Renewable Placer: Waste Action Plan (Waste Action Plan). Section 4.2 describes the preferred concept and the process used by the WPWMA to make that determination. Section 4.3 describes the relationship between the Waste Action Plan and this EIR and the Sunset Area Plan (SAP) and SAP EIR. Section 4.4 describes which elements of the Waste Action Plan are evaluated in this EIR at a project level and which are evaluated at a programmatic level. Section 4.5 provides additional environmental baseline information, particularly areas where the current environmental condition differs from the project environmental baseline. Section 4.6 describes the WPWMA's current process for soliciting Materials Recovery Facility (MRF) proposals for a future operating agreement and how the Request for Proposals (RFP) responses align with the environmental analysis contained in this EIR. The future MRF Operator contracts could have a duration less than the period evaluated in this EIR, and for the purposes of this EIR the duration assumed is 10 years.

4.1 Evaluation of Two Plan Concepts to Implement the Renewable Placer: Waste Action Plan

This section provides a brief history of the actions leading to preparation of this Draft EIR (DEIR) that culminated in the decision to evaluate two plan concepts to implement the Waste Action Plan (WPWMA 2020).

The Waste Action Plan was developed to identify the physical and operational Waste Recovery and Waste Disposal changes that are needed at the WPWMA facility to continue to provide high-quality solid waste management services in response to a fast-growing population in an increasingly complex regulatory environment and rapidly changing global recycling markets.

At its October 13, 2016 meeting, the WPWMA Board of Directors approved a phased agreement with CH2M¹⁵ to provide consulting services in support of the Waste Action Plan. Phase I of the agreement consisted of development of facility Plan Concepts to address future operational needs.

At the onset of the project, the WPWMA convened an Advisory Committee composed of key staff from each of the WPWMA's Member Agencies to provide input and serve as a conduit between the WPWMA and Member Agency leadership groups throughout the process. The Advisory Committee agreed that, should future operations be limited, jurisdictions would be better served by the WPWMA continuing to provide recycling and waste diversion services rather than landfill capacity.

Under Phase I, the Consulting Team prepared numerous technical evaluations including waste projections and waste processing adjacency study, aquatic resources delineation, and preliminary cultural resources and geotechnical evaluations. The Consulting Team incorporated these initial technical findings, and worked with WPWMA staff and the Advisory Committee to develop several potential facility Plan Concepts that were later refined to the following three:

¹⁵ On December 15, 2017, all CH2M companies became part of Jacobs Engineering Group Inc. (Jacobs) and are now wholly owned direct subsidiaries of Jacobs. CH2M HILL Engineers, Inc., will remain a separate legal entity, and we will continue to operate and conduct business under this entity. This report will have references to both CH2M and Jacobs; however, they should be viewed as one-and-the-same company, and the company names can be used interchangeably. For continuity with other documentation, CH2M (Jacobs) and its subcontractors will be referred to as the Consulting Team.

- **Plan Concept 0:** Existing Site Reconfigured – Conduct all future solid waste operations exclusively on the existing permitted central property.
- **Plan Concept 1:** Landfill East – Designates the eastern property for future landfill operations as necessary. MRF and construction and demolition operations would remain on the existing property, an organics management and space reserved for third-party compatible manufacturing operations would be located on the western property.
- **Plan Concept 2:** Landfill West – Designates the western property for future landfill operations, as necessary, and maintains non-landfill operations on the existing center parcel. The eastern property would be reserved for third-party compatible manufacturing operations and/or biological reserve.

In an effort to achieve an understanding of regional needs and to develop a consensus of the Waste Action Plan purpose and process, the Consulting Team and WPWMA staff engaged stakeholder groups to solicit feedback. The Consulting Team incorporated Advisory Committee and stakeholder feedback as Plan Concepts were compared using Multi-Objective Decision Analysis (MODA) and present value economic analysis.

The MODA process was designed to provide a quantifiable, objective, robust, and transparent method for comparing the Plan Concepts by analyzing nonmonetary aspects based on a series of criteria. The criteria were developed with the Member Agency Advisory Committee to reflect the project goals and priorities most important to the WPWMA, Member Agencies, and key stakeholders, as well as to provide a reasonable level of differentiation between the Plan Concepts. The WPWMA Board approved the MODA criteria at its September 13, 2018 meeting.

The Consulting Team led WPWMA staff and the Member Agency Advisory Committee through a weighting exercise to provide feedback on the relative importance of each criterion. The Consulting Team then independently scored how well each Plan Concept met the criteria and applied WPWMA staff and Member Agency Advisory Committee weighting factors to determine the final MODA score.

As shown in Table 4-1 (as presented at the December 2018 Board meeting), Plan Concept 1 had the highest and most optimal MODA score.

Table 4-1. Plan Concept Final MODA Scores by Reviewer Profile

Profile	MODA Score		
	Plan Concept 0	Plan Concept 1	Plan Concept 2
WPWMA staff	33.9	75.1	52.9
Advisory Committee	34.4	75.8	53.0

The Consulting Team then conducted an economic analysis, the purpose of which was to produce an annualized cost in current (2018) dollars for each Plan Concept and to identify when significant changes in capital and operating expenditures were projected to be necessary. For comparison purposes, the project time frame was equal to the longest landfill life expectancy of the three Plan Concepts.

The economic analysis results were intended to provide general insight into the budgetary-level costs needed to achieve the goals for each Plan Concept over the entire life of the evaluation period, and included only the capital, operating, and overhead costs for the elements identified in the Plan Concepts. Other costs or revenues that may be realized in the future outside of the Waste Action Plan were not included (that is, facility renovations, MRF equipment replacement, or compatible technologies).

The economic analysis resulted in the following preliminary annualized cost estimates (including capital and operating costs) for each Plan Concept:

- Plan Concept 0 (Existing Site): \$74,100,000
- Plan Concept 1 (Landfill East): \$50,700,000
- Plan Concept 2 (Landfill West): \$59,800,000

For the WPWMA to better understand the immediate financial impacts of each plan concept, the Consulting Team developed the Initial Capital Cost Estimates for each plan concept. The initial capital costs (provided in 2018 dollars) do not factor in construction timing, replacement costs, or the time value of money as considered in the present value analysis. In other words, these costs are the equivalent of all elements within each Plan Concept being constructed in its entirety within year 2018. The initial capital costs for each of the Plan Concepts are summarized in Table 4-2.

Table 4-2. Initial Plan Concept Costs

Plan Concept	Probable Cost
0 – Existing Site	\$352,250,000
1 – Landfill East	\$521,233,000
2 – Landfill West	\$640,364,500

Plan Concept 1 had the lowest annualized cost. A detailed description of the process by which each Plan Concept was developed, the MODA process, and the economic evaluation is included in the Renewable Placer: Waste Action Plan Phase I Concept Evaluation Report, February 2019, which can be found on the Renewable Placer website: <https://renewableplacer.com/stay-informed/>

Based on the results of the MODA process and economic analysis, Plan Concept 1 was found to best meet the needs of the WPWMA and its Member Agencies at the lowest relative cost. As a result, it was recommended that the WPWMA Board select Plan Concept 1 as the preferred option for the purposes of conducting a detailed environmental review consistent with the California Environmental Quality Act (CEQA) guidelines. Other options were presented to the WPWMA Board as follows:

- Proceed with environmental review with Plan Concept 2 as the preferred option.
- Proceed with environmental review with Plan Concept 1 and Plan Concept 2 as equal weight alternatives.
- Terminate or suspend the master planning process and operate within the current permit conditions.

Ultimately, the WPWMA Board directed staff at its December 13, 2019, meeting to initiate the CEQA process and evaluate Plan Concepts 1 and 2 at an equal level of detail.

4.2 Preferred Plan Concept

As described in Chapter 1, Introduction, and elsewhere in this EIR, the proposed project is implementation of the Waste Action Plan, and Plan Concepts 1 and 2 have been identified as two options for implementing the Waste Action Plan. Accordingly, Plan Concepts 1 and 2 have been evaluated at an equal level of detail in this EIR.

However, recent court rulings (including *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal. App. 5th 277) are applicable to EIRs that evaluate a range of possible project

alternatives at an equal level of detail. In *Washoe Meadows Community v. Department of Parks & Recreation*, the First District Court of Appeal ruled that a description of a broad range of possible projects in the DEIR, rather than a preferred or actual project, presented the public with a moving target that was an obstacle to informed public participation. In this case, the DEIR evaluated five vastly different project alternatives, each creating a different footprint on public land and each creating different sets of impacts requiring different mitigation measures.

Consequently, while the WPWMA believes that identification and evaluation of two Plan Concepts to implement the Waste Action Plan provides the public and decision makers with robust review and disclosure regarding the potential environmental impacts associated with implementation of the Waste Action Plan, and although both Plan Concepts would achieve the Waste Action Plan objectives and would meet WPWMA's long-term operational needs, in May 2021, the WPWMA decided to perform an updated financial comparison of the two Plan Concepts to provide information needed to aid in determining a preferred plan concept. The comparison was focused on financial considerations and the previously conducted MODA process.

Using the cost information compiled in the Phase 1 Concept Evaluation Report, the cost estimates were reviewed and revised as appropriate; focusing on conditions that have arisen, or are reasonably foreseeable to arise, that could alter the magnitude or timing of costs. The evaluation consisted of five general steps:

- Step 1. Assessed potential changes to capital cost components.
- Step 2. Updated the timing of capital costs.
- Step 3. Escalated initial capital costs for each Plan Concept.
- Step 4. Escalated initial capital costs during the 10-year construction horizon.
- Step 5. Calculated present value of capital costs during the 10-year construction timeline (2022-2031).

After assessing potential changes to the capital cost components, it was concluded by the Consultant Team that sizing, conceptual design, or throughput assumption changes would not dramatically change the cost estimates for the major capital cost components as they exist, but that the changes could be captured by timing and unit pricing adjustments. Next, the Consultant Team performed construction timing updates for capital costs occurring between 2022 and 2031. Changes were made to better align with the CEQA construction schedule that was being used for other analyses. Once the Consultant Team updated the timing of capital costs, the initial cost estimates were escalated from 2018 dollars to 2023 (first primary year of construction) dollars to account for the surge in construction costs during the past 15 months. The updated initial capital cost estimates are presented in Table 4-3.

Table 4-3. Updated Plan Cost Estimates

Plan Concept	Probable Cost (2023 Dollars)
Plan Concept 1	\$604,100,000
Plan Concept 2	\$742,200,000

The WPWMA's Consultant Team prepared a year-by-year capital cash flow for near-term (years 2022 through 2031; Figure 4-1) by escalating 2024 and 2025 values by 4.0 percent and 2026 through 2031 values by 2.4 percent, using the Congressional Budget Office, Core Consumer Price inflation values as a

basis for this assumption. The annual capital spending is shown in the year of expenditure (for example, an element in 2028 is shown in 2028 dollars) and the present value for near-term (years 2022 through 2031) capital expenditures in 2021 dollars (Table 4-4).

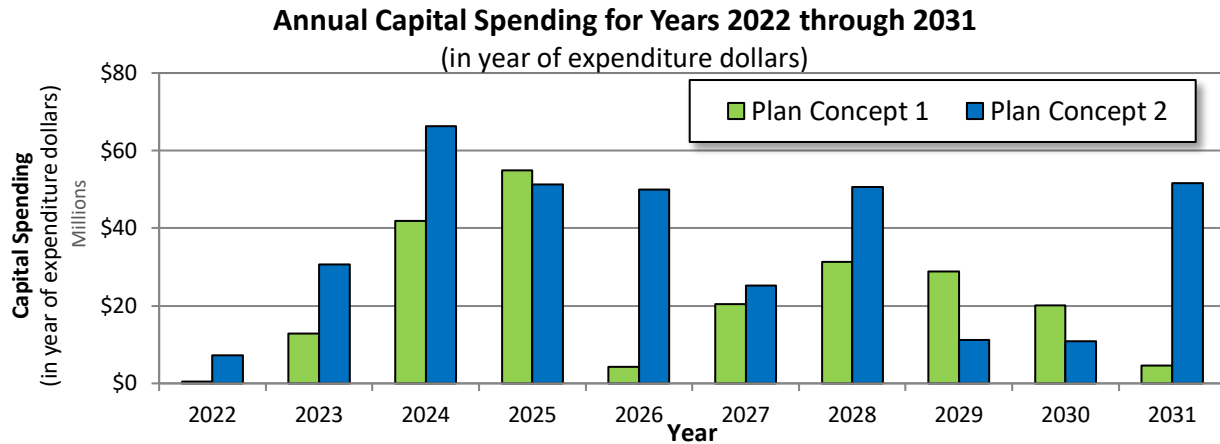


Figure 4-1. Plan Concept Near-Term Annual Capital Spending Estimates
2021 Updated Cost Estimate

Table 4-4. Plan Concept Present Value
2021 Updated Cost Estimate

Plan Concept	Present Value of Capital Costs for Years 2022–2031 (2021 Dollars)	Percent Difference (%)
Plan Concept 1	\$174,100,000	n/a
Plan Concept 2	\$281,700,000	62

Costs shown in Table 4-4 are provided in 2021 dollars for initial capital costs anticipated to be built from 2022 through 2031 (10-year timeline) only, at a 4.45% nominal discount rate.

Based on the updated financial evaluation, combined with the previously conducted MODA process, the **WPWMA identified Plan Concept 1 as the preferred plan concept**. This is consistent with the previous recommendation and the conclusions from the 2018 Concept Evaluation Report. Chapter 18, Alternatives, compares all alternatives to Plan Concept 1 as the preferred plan concept.

It should be noted that the identification of Plan Concept 1 as the preferred plan concept in this EIR does not preclude the WPWMA Board from selecting Plan Concept 2 to implement the Waste Action Plan, if after WPWMA Board review of the impact conclusions and mitigation measures identified in this EIR, Plan Concept 2 is found to be in the best interests of the WPWMA, Member Agencies, or other stakeholders.

4.3 Relationship of Project to Sunset Area Plan/Sunset Area Plan Environmental Impact Report

The WPWMA facility is located within a community plan identified as the SAP (Placer County 2019a). The SAP was developed by Placer County's Community Development Resource Agency in 2019 and is intended to be used to guide development of the southwestern Placer County area located directly west of State Route (SR) 65 between the Lincoln Crossing and Blue Oaks subdivisions.

The SAP area encompasses 8,497 acres in unincorporated west Placer County. West Placer County is characterized by a mix of urban, suburban, and rural land uses and is influenced by the Sacramento Metropolitan Area. The plan area covers over 13 square miles between the cities of Rocklin to the east, Roseville to the south, Lincoln to the north, and unincorporated Placer County to the west. The SAP includes and recognizes different land uses that reflect the current market demand in the region, which is a mix of industrial, commercial, institutional, and residential uses. A portion of the SAP area is proposed as a specific plan entitled the Placer Ranch Specific Plan (PRSP) area. The 2,213-acre PRSP area is located in the southwestern portion of the SAP area.

The SAP is a policy document intended to guide growth in the SAP area over a 20-year planning horizon; buildout of the SAP area is expected to occur over 80 years or more. An EIR to evaluate the physical environmental effects of the proposed SAP and PRSP was prepared pursuant to CEQA (*Public Resources Code* [PRC] Section 21000, et seq.) and the CEQA Guidelines (*California Code of Regulations* [CCR], Title 14, Chapter 3, Section 1500, et seq.).

The SAP EIR evaluates the potential environmental impacts associated with implementing the SAP and PRSP. In accordance with Section 15168 of the CEQA Guidelines, a program EIR may be prepared on a series of actions that can be characterized as one large project and, among other things, are related geographically or in connection with issuance of rules, regulations, or plans to govern the conduct of a continuing program. Because of the broad geography, long timeframe anticipated for buildout, and policy-oriented nature of the SAP, the impact analysis of the SAP was prepared at a programmatic level—that is, a more general analysis with a level of detail and degree of specificity commensurate with that of the plan itself, focusing on the effects that can be expected to follow from adoption of the plan.

The SAP is divided into seven thematic districts that reflect discrete development opportunities that make up the vision for the SAP area. These districts frame the broader land use patterns and motifs that serve as the vision and the basis for the specific land use designations. One of the seven thematic districts is the Eco-Industrial/Manufacturing/WPWMA District. This district includes the entirety of the existing WPWMA facility on the center property and all of the WPWMA's western and eastern properties. This area focuses on the opportunity to build an integrated eco-industrial and manufacturing district, as it has the parcel sizes to accommodate major users involved in goods production.

The SAP Implementing Zone Regulations include a Zoning Map that identifies the zoning for the proposed project site as Eco-Industrial (ECO). The intent of the ECO Zone is to provide areas for industrial uses that emphasize ecology, waste reuse and sustainable salvaging, and remanufacturing. Remanufacturing uses are defined as operations that produce consumer products with recycled content that can include, for example, facilities that manufacture cardboard boxes made from recycled paper or facilities that produce picnic tables made of recycled plastic pellets. This zone directly serves and is compatible with the ongoing operation of the WPWMA facility. The uses in this zone are intended to allow for manufacturing and remanufacturing, recycling of construction and demolition (C&D) debris, plastics processing, paper conversion, glass processing, and similar industrial uses. The SAP EIR estimated that a total of 7,916,600 square feet of industrial development would occur on the proposed project site at full buildout.

As a primary component of one of the seven thematic districts in the SAP, the SAP EIR programmatically evaluated the environmental impacts that would be anticipated with the expansion of solid waste elements and development of industrial uses on the WPWMA properties consistent with the site's land use and zoning designations. Both Plan Concepts include the development of the WPWMA properties consistent with the land use and zoning designations identified in the SAP. Therefore, the impact analysis included in the SAP EIR is directly applicable to the proposed project.

Agencies are encouraged by CEQA Guidelines Section 15152 to tier the environmental analysis that they prepare for separate but related projects including general plans, zoning changes, and development projects. Tiering includes using the analysis of general matters contained in a broader EIR, such as the SAP EIR, when preparing a later EIR on a narrower project (such as the Waste Action Plan). The use of this tiering approach in EIRs can eliminate repetitive discussions of the same issues and focus the later EIR on the actual issues for decision.

CEQA Guidelines Section 15152(d) states that where an EIR has been prepared and certified for a plan consistent with the requirements of Section 15152, the lead agency for the later project pursuant to or consistent with the plan should limit the EIR on the later project to effects that

- Were not examined as significant effects on the environment in the prior EIR.
- Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

This EIR is using the tiering concept and is hereby incorporating by reference the information included in the SAP EIR, in accordance with CEQA Guidelines Section 15150. An EIR may incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public (CEQA Guidelines Section 15150). The SAP EIR is available for review at the following link: <https://www.placer.ca.gov/2702/Sunset-Area-Plan---Placer-Ranch-Specific>. As appropriate, portions of the SAP EIR relevant to the proposed project's environmental analysis are summarized and addressed in the environmental and regulatory setting sections of each resource chapter.

In addition to the general tiering and incorporation by reference described earlier, there are two specific areas where this EIR tiers off of the analysis included in the SAP EIR, including the approach to the assessment of traffic impacts and the approach to the cumulative impact analysis. Each is described in the sections that follow.

4.3.1 Transportation Approach

Transportation information in this EIR draws from the analysis of transportation and circulation included in the 2019 SAP EIR. Specifically, existing traffic volumes were obtained from the 2018 SAP/PRSP Transportation Impact Study, included as part of the SAP EIR. Additional information and analysis is based on the SAP EIR and 2018 SAP/PRSP Transportation Impact Study, including information related to regional vehicle miles traveled.

4.3.2 Cumulative Approach

The approach to cumulative impacts in this EIR is based on CEQA Guidelines Section 15152(f)(2), which addresses cumulative effects when tiering from an existing document, and which states the following:

When assessing whether there is a new significant cumulative effect, the lead agency shall consider whether the incremental effects of the project would be considerable when viewed in the context of past, present, and probable future projects. At this point, the

question is not whether there is a significant cumulative impact, but whether the effects of the project are cumulatively considerable.

The Waste Action Plan evaluated in this EIR was foreseen by the SAP and SAP EIR and is included in the cumulative project list in the SAP EIR. Consequently, the cumulative impacts of the proposed project, in conjunction with the development of the SAP and other projects included on the SAP EIR cumulative project list, were addressed in the SAP EIR. This approach is reflected in the cumulative impacts analysis for the proposed project, found in Chapter 19, Cumulative Impacts.

4.4 Solid Waste Elements versus Complementary and Programmatic Elements Addressed in EIR

The degree of specificity required in an EIR corresponds to the degree of specificity involved in the underlying activity described in the EIR (CEQA Guidelines Section 15146). For this reason, a project-level EIR, which addresses projects with effects that can be predicted with greater accuracy, will be more detailed than a program EIR in its discussion of effects. A single EIR can include both a project-level analysis and a program-level analysis when detailed information is known about specific components of a project and less detail is known about other project components.

In accordance with CEQA Guidelines 15161, this document is considered a project EIR for the proposed solid waste management elements. In accordance with CEQA Guidelines Section 15168, this document is also considered a program EIR for the activities that are complementary to the proposed solid waste management activities.

The solid waste management elements include the waste recovery and waste disposal components that are needed to continue to provide solid waste management services to the WPWMA's Participating Agencies in the near and long term. These project elements, plus supporting elements, are described in detail in Chapter 3, Project Description, and evaluated in detail throughout this DEIR at the project level.

In addition to the WPWMA's permitted waste recovery and waste disposal activities, the WPWMA is uniquely positioned to partner with third-party developers to provide services to the Participating Agencies that are important in achieving specific project goals (for example, creating opportunities for innovation and economic growth, enhancing opportunities to increase recycling and landfill waste diversion, and enhancing the ability to comply with regulations). These complementary and programmatic elements, also described in Chapter 3, Project Description, include the following:

- Pilot Study Area – Space would be reserved for third parties to conduct pilot studies using materials and products from the WPWMA's facility and processing them in new ways or producing beneficial products including renewable energy, fuels, and marketable commodities.
- Compatible Manufacturing – Space would be reserved for third-party commercial or full-scale compatible technologies and manufacturing operations that would take materials and products from the WPWMA's facility to produce beneficial products, including renewable energy, fuels, and marketable commodities.
- University Research Area – Space would be reserved for university-led research using materials and products from the WPWMA's facility and processing them in new ways or producing beneficial products including renewable energy and marketable commodities. This could also include more general solid waste-related research to improve facility diversion, increase efficiencies, and lower environmental impacts.

- Landfill Gas (LFG)-to-Compressed Natural Gas Area – Space would be reserved for a potential third party or WPWMA-led facility that would convert LFG to compressed natural gas, hydrogen, or other renewable product that could be used to fuel vehicles operated by local governments, waste hauling companies, or other private companies, or otherwise be transferred to other end users.

Although the waste recovery and waste disposal elements of the proposed project are known and directly under the WPWMA's control, the complementary and programmatic elements are not fully defined at this time. As such, most of these elements are evaluated at a program (programmatic) level in this EIR.

A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either

- Geographically
- As logical parts in the chain of contemplated actions
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program
- As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways

The use of a program EIR can provide the following advantages:

- Provides an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action
- Enables consideration of cumulative impacts that might be slighted in a case-by-case analysis
- Avoids duplicative reconsideration of basic policy considerations
- Allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an earlier time when the agency has greater flexibility to deal with basic problems or cumulative impacts
- Reduces paperwork

A program EIR is most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

This EIR has been prepared as both a project EIR and a program EIR, with the intent being to provide as much detail and as robust an analysis as possible about subsequent activities that are complementary to the existing and proposed solid waste management activities.

To ensure consistency with the development assumptions included in the SAP, the proposed project assumes 1,946,325 square feet of complementary industrial uses (1.9 million square feet) would be developed on the project site within the timeframe of the Waste Action Plan implementation, which extends to 2050. Of these 1.9 million square feet of industrial uses, 300,000 square feet are evaluated in this EIR at a project level. The remaining 1.6 million square feet are evaluated in this EIR at a program level.

The SAP EIR estimated that a total of 7,916,600 square feet of industrial development would occur on the project site at full buildout (Phase 2), including the 1.9 million square feet associated with Phase 1 and

evaluated in this DEIR. Full buildout was estimated to take approximately 80 years to complete (Table 4.14-17, Ascent Environmental 2018). Because the square footage of industrial development identified in Phase 1 would be sufficient to meet the project objectives and the industrial demand beyond 2050 would be speculative, the implementation of Phase 2 development assumptions on the project site are not considered a component of the proposed project at either a project or program level in this DEIR.

The SAP Implementing Zone Regulations include a Zoning Map that identifies the project site zoning as ECO. The intent of the ECO Zone is to provide areas for industrial uses that emphasize ecology, waste reuse and sustainable salvaging, and remanufacturing. Remanufacturing uses are defined as operations that produce consumer products with recycled content that can include, for example, facilities that manufacture cardboard boxes made from recycled paper or facilities that produce picnic tables made of recycled plastic pellets. This zone directly serves and is compatible with the ongoing operation of the WPWMA's facilities. The uses in this zone are intended to allow for manufacturing and remanufacturing, recycling of C&D debris, plastics processing, paper conversion, glass processing, and similar industrial uses. The complementary elements of the proposed project are expected to be consistent with the allowable uses of the ECO Zone.

Additionally, complementary elements are anticipated to be consistent with Industrial Zone Development Standards, as described in the SAP Implementing Zoning Regulations (Placer County 2019b). These standards specify setbacks from the property line ranging from 15 to 50 feet and a maximum height of 100 feet. Towers, poles, water tanks, and similar structures may be constructed higher than 100 feet.

This EIR describes complementary elements for each Plan Concept. Although the activities associated with the complementary elements are the same for each Plan Concept, locations within the WPWMA facility are not.

Plan Concept 1 generally locates the 1.9 million square feet of complementary elements on the northern and southern extents of the western property, with some activities on the center property. For purposes of this EIR, up to 300,000 square feet of building associated with the complementary elements plus associated outdoor infrastructure are considered at a project level. For purposes of analysis, these industrial uses are assumed to be located on the northern portion of the western property (Figure 3-1).

Plan Concept 2 generally locates the 1.9 million square feet of complementary elements on the eastern property and the southern extent of the western property, with some activities on the center property. For purposes of this EIR, up to 300,000 square feet of building associated with the complementary elements plus associated outdoor infrastructure are considered at a project level. For purposes of analysis, these industrial uses are assumed to be located on the northern portion of the eastern property (Figure 3-7).

Table 4-5 provides an overview of the complementary and programmatic elements that are evaluated at a project level versus a programmatic level in this EIR.

Table 4-5. Project and Program-Level Evaluation of Complementary and Programmatic Elements in EIR

	Project Level	Program Level
Plan Concept 1	300,000 square feet of building plus exterior infrastructure for complementary solid waste management elements Located on the northern portion of the western property Assumed to be built within 10 years	Up to 1.6 million square feet of industrial uses that are complementary to the solid waste management elements Primarily on the northern and southern extents of the western property, plus locations on the center property Full build-out through 2050
Plan Concept 2	300,000 square feet of building plus exterior infrastructure for complementary solid waste management elements Located on the northern portion of the eastern property Assumed to be built within 10 years	Up to 1.6 million square feet of industrial uses that are complementary to the solid waste management elements Primarily on the eastern property, plus locations on the center property and southern portion of the western property Full build-out through 2050

The detailed project-level evaluation provided in this DEIR includes all the solid waste management elements and supporting elements associated with the proposed project, plus 300,000 square feet of building for complementary elements. The analysis of the potential environmental impacts resulting from these project elements are described in detail in each of the resource area chapters, Chapters 5 through 17.

This DEIR also includes evaluation of the remainder of the complementary and programmatic elements (1.6 million square feet) that would be potentially developed on the WPWMA property by the WPWMA or by third parties. The analysis of the potential environmental impacts resulting from these project elements is provided at a programmatic level in each of the resource chapters, Chapters 5 through 17.

4.5 Additional Baseline Information

The CEQA guidelines (CCR Section 15125[a]) state that:

An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.

(1) Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of

both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record.

(2) A lead agency may use projected future conditions (beyond the date of project operations) baseline as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision-makers and the public.

The WPWMA issued a Notice of Preparation (NOP) for the project on March 15, 2019, and initiated preparation of the CEQA environmental review process. For purposes of this analysis, the baseline conditions for this DEIR are generally the conditions that existed on the three WPWMA-owned properties in 2019. For solid waste operations that fluctuate on a daily basis and to represent a full year of data, the baseline is based on averages from calendar year 2018, unless otherwise specified.

Because the center property is currently actively used for waste management, Chapter 1, Introduction, provides a robust description of those extensive ongoing waste recovery and waste disposal activities. Additionally, Chapters 5 through 17 of this DEIR present the existing environmental conditions on the project site and surrounding area, in accordance with the CEQA Guidelines (CCR Section 15125). This setting generally serves as the baseline against which environmental impacts are evaluated.

The WPWMA used conservative assumptions in this DEIR when evaluating the proposed project's impacts against the existing baseline conditions in order to fully disclose to the public the possible adverse environmental impacts that could occur with changes in site operations. However, while it is important to document these potential adverse environmental impacts, it is also important to acknowledge that by achieving the project's fundamental goal of fostering the development of local markets, the project itself would be expected to generate specific environmental benefits when compared with current operations. This approach of fostering the development of local markets is intended to spur environmentally focused innovation, increase the diversion of recyclable materials and the delivery of these materials to local markets, reduce overall vehicle miles traveled, and reduce the air quality and greenhouse gas (GHG) emissions associated with delivering these materials to distant domestic and foreign markets. Other examples where environmental impacts associated with ongoing operations would be avoided with project implementation include the following:

- With existing operations, insufficient facility capacity to accept and process materials from the Participating Agencies could force one or more of the agencies to transport their wastes to other facilities. Inevitably, this would result in increased heavy-duty truck traffic to and from these alternative facilities over an extended period of time. This action would not only result in increased vehicle miles traveled but also increased GHG emissions and other air quality impacts associated with the combustion of diesel and other fossil fuels.
- If the organics management area capacity is not increased, there is the potential for a greater amount of organic materials received at the WPWMA facility to be landfilled. Although the LFG collection system would recover a significant portion of this additional LFG, some of the LFG (consisting of approximately equal parts CO₂ and CH₄) would be released to the atmosphere and result in increased GHG emissions. Furthermore, without modifying the organics management area to fully implement aerated static pile methods, compost-related odors would likely increase over time with regulatory pressures to compost food waste and other non-green waste organics.
- Unless space is dedicated to site and foster new and emerging technologies to increase the diversion of materials from landfilling and buffer the WPWMA from the instability of global recycling market fluctuations, increases in air and GHG emissions as well as increases in vehicle miles traveled would be

realized as a result of the need to continue or expand the long-distance transport of recyclable commodities to both domestic and foreign markets.

There are three areas where the existing condition for the proposed project differs from the 2019 baseline described in Chapter 1, as described in the following sections.

4.5.1 Organics Management

As part of continuously improving operations at the facility, the WPWMA pursued upgrades to the organics management operation subsequent to the NOP. Specifically, the WPWMA conducted a pilot study to evaluate composting combined green and food waste using an aerated static pile (ASP) composting method, as ASP composting generally provides for faster turnaround time for finished compost, less labor, and less odor.

Table 4-6 describes the 2019 environmental baseline, activities that occurred between the NOP and present, and the current operating condition for the organics management operation.

Table 4-6. Organics Management Operation Baseline and Current Condition

2019 Baseline	Between 2019 Baseline and Existing Condition	Current Operating Condition
Composting green waste using open windrows (60,606 tons per year) Windrow piles watered periodically using a water truck and turned using a diesel-powered windrow turner or loader	Pilot study to evaluate co-composting of green and food waste using an ASP composting method ASP piles initially wetted; piles typically not turned during active composting	The WPWMA has obtained permits from the Placer County Air Pollution Control District to perform ASP composting for the entire organics management operation (82,000 tons per year), but will retain approval to use windrow composting for the non-food portion of the feedstock

Following completion of the active composting process (windrow and ASP), the material is moved to static piles and allowed to cure, screened (using a diesel-powered trommel screening device located within the compost pad area), and then marketed for sale and removed from the site. All the composting activities occur outdoors.

4.5.2 Site-Wide Odor Plan

The baseline discussion in Chapter 1, Introduction, describes a variety of mechanisms used by the WPWMA to control odors at the site at the time the NOP was released. These included an Odor Impact Minimization Plan (OIMP) for the organics management facility as well as additional BMPs.

At the time of the NOP, the WPWMA used an OIMP that was last updated in 2016. In addition to the OIMP, the WPWMA implemented additional best management practices (BMPs) for the organics management operation, plus odor BMPs for the MRF building, the C&D operation, and the Western Regional Sanitary Landfill (WRSL) to reduce the potential for odors to be perceived by nearby residents. This EIR assumes the use of the 2016 OIMP plus additional odor-control BMPs as the baseline condition against which potential odor impacts of the proposed project are evaluated.

Subsequent to the NOP, the 2016 version of the OIMP was updated in 2020 and implemented for the organics management operation. The OIMP describes potential sources of odor and the odor control measures that are currently being implemented at the WPWMA's organics management operation. As part

of the documents prepared to support Placer County Air Pollution Control District permitting of ASP composting, the WPWMA updated the OIMP for use in 2021 and beyond.

In 2021, the WPWMA began full implementation of a Site-Wide Odor Plan (SWOP), developed in coordination with the Placer County Air Pollution Control District, to provide information about facility odor sources, meteorological conditions that have the potential to exacerbate the perception of odors, and the measures the WPWMA takes to reduce the potential for facility odors to be perceived by nearby residents. The SWOP is used as a tool by the WPWMA and its facility operators and contractors to consistently and proactively take the appropriate steps to reduce the potential for offsite odors. The SWOP establishes the BMPs used to mitigate the release of odors from WPWMA facilities. The SWOP includes measures to prevent, monitor, and address odors. BMPs reflect current operating and regulatory conditions; changes in regulations or programs operated by the Participating Agencies may necessitate revisions to the SWOP.

The SWOP identifies four facilities or operations at the WPWMA facility with the greatest potential to produce odors: MRF building, composting operation, active landfill areas, and landfill gas collection and control system. Specific odor control measures from the SWOP for each of these operations are included in their respective discussion in Chapter 3, Project Description. The SWOP is included in Appendix C.6.

4.5.3 Landfill Gas Generation

Total LFG generation associated with the 2018 Baseline was estimated by using the EPA's LFG generation model (LandGEM), with appropriate input values based on actual annual waste placement and estimated waste composition data through 2018. Future LFG generation associated with the proposed project was estimated by using projected future waste placement rates and assuming that the composition of the waste stream would change during the project timeframe, consistent with Senate Bill (SB) 1383 organics diversion requirements. The incremental increase in LFG generation between the 2018 Baseline and project buildout year of 2050 (when maximum operational capacity is expected) was analyzed as part of the proposed project for each Plan Concept.

4.6 MRF Operations Design Concept Evaluation

The WPWMA is currently undergoing a competitive procurement process for the future near-term (approximately 10-year) operations of the waste recovery and waste disposal operations. The WPWMA developed RFPs for these operations in May 2020. As part of that process, the WPWMA received proposals for operations of the waste recovery operations (termed MRF operations for the RFP) and for waste disposal operations (termed landfill operations for the RFP). The WPWMA's procurement process is ongoing as of the writing of this DEIR.

An independent review of the vendor proposals for MRF operations was conducted following the WPWMA's Board authorization at the February 11, 2021, WPWMA Board meeting. The independent review entailed a high-level review of the operation conceptual designs to assist the WPWMA with determining what, if any, proposed elements are not currently fully addressed in the two plan concepts. The RFP addresses only a subset of the overall Waste Action Plan timeframe, approximately 10 years. Responses received indicate that operational changes proposed fall within the umbrella of impacts evaluated in the EIR for the Waste Action Plan, and that there would be no change in the total quantity of wastes received at the facility and no change in the waste stream composition. The vendor proposals include potential changes to the management of organics contained within the municipal solid waste (MSW) stream (MSW organics composting) and the diversion rates that are proposed to result from additional organics processing. The responses indicate that the rate for organics and recyclables to be diverted from MSW

would be accelerated compared to the proposed project. This accelerated diversion rate may result in a nominal increase in traffic during the 10-year operating agreement as materials diverted from the waste stream are recovered and taken offsite. However, this increase in the near-term traffic would be less than the maximum trips associated with full buildout of the Waste Action Plan and evaluated in this EIR. Other proposed activities included in the vendor proposals that differ from currently proposed operations are believed to fall within the range of the project components described for Plan Concepts 1 and 2 and are not specifically identified or addressed. Additionally, where these proposed activities diverge from those described in Chapter 3, they are assumed to fall within the programmatic approach for compatible manufacturing or pilot study areas.

Features of the potential differences between the proposals received during the MRF RFP process and the proposed project evaluated in this EIR are summarized as follows:

- Generally, the organics management operation described in the proposals accommodates a total of 157,550 tons per year of organics (92,450 tons per year of food waste plus the organics fraction of MSW and 65,100 tons per year of yard waste), located on the center property. This capacity is comparable to the full build-out capacity as the organics management operation in Plan Concept 1 and Plan Concept 2 (157,900 tons per year by 2050) but occurs in a shorter timeframe. Locating an organics management operation on the center property is consistent with Plan Concept 2.
- To accommodate the quantity of material processed at the organics management facility, the facility would need to be built sooner than anticipated in Plan Concept 1 and Plan Concept 2. However, the total capacity of the bidders' facility is within the total capacity (full build-out in 2050) of Plan Concept 1 and Plan Concept 2 and evaluated in this EIR.
- In addition to processing green waste and food waste, the organic fraction of municipal solid waste (OFMSW) in the organics management feedstock would be pulled out of the mixed MSW (non-source separated) sorted inside the MRF building.
- Recovering the OFMSW would increase diversion rates and decrease the amount of material going to disposal at the WRSL. The proposals include an overall diversion rate of 55 to 60 percent during the 10-year timeline of the proposals, whereas Plan Concepts 1 and 2 have an estimated overall diversion rate of 50 percent or greater by 2050. A portion of the increased diversion is due to the additional organics diversion and a portion is from additional diversion of recyclables.
- The technology proposed for processing includes a combination of ASP and covered ASP (CASP). Some form of CASP would be used to process the food waste and OFMSW. One of the proposals uses a biolayer (similar to the proposed project) cover, and one uses a membrane cover. The aeration systems in the proposals for the food waste and OFMSW is either positive or reverse flow. The two proposals use a biolayer cover on the ASP piles that are processing yard waste. ASP is used for curing all organics feedstocks rather than static piles.
- Due to the increased organics diversion, a receiving and processing building for yard waste could be developed.

The EIR evaluates a full buildout of the Waste Action Plan, which is envisioned to have a 30-year life. The MRF Operations Procurement Process would potentially result in a 10-year operating agreement. In all cases, the quantities of waste identified for processing at the WPWMA facility under the MRF RFP process are within the quantities evaluated for the life of the Waste Action Plan, the impacts of which have been evaluated in detail in this EIR.

The MRF RFP process responses would result in the diversion of material from Waste Disposal to Waste Recovery, in the form of composting as part of the organics management operation and additional recyclables. Diversion of the OFMSW and other recyclables would potentially result in the following:

- Smaller landfill footprint over the life of the project, as a result of more material being diverted from waste disposal;
- Processing of more compost in the short term, corresponding to the diversion of OFMSW from the waste stream;
- Reduction in landfill gas production, which corresponds to the diversion of OFMSW from disposal;
- The expanded use of ASP would have a corresponding increase in energy use in the near-term, in the form of electricity used for blowers; and
- Increased amounts of recyclables recovered from the MRF would be anticipated to result in a near-term increase in outbound traffic taking material to market and provide greater opportunities for compatible manufacturing.

After reviewing selective portions of the MRF RFP bidder responses and comparing them to the project description, changes to the following chapters were not found to be necessary because the changes associated with the MRF RFP responses do not deviate meaningfully from the solid waste management elements already envisioned in the EIR for Plan Concepts 1 and 2 and evaluated for potential impacts:

- Aesthetics, Chapter 5
- Biological Resources, Chapter 7
- Cultural and Tribal Resources, Chapter 8
- Geology, Soils, and Paleontological Resources, Chapter 9
- Hazards, Hazardous Materials and Wildfire, Chapter 11
- Land Use and Planning, Chapter 13
- Noise, Chapter 14
- Public Services, Chapter 15

Table 4-7 identifies chapters where the changes associated with MRF Operations RFP responses may result in slightly different/slightly fewer impacts than those described in the EIR, but not worthy of a discussion in the chapter.

Table 4-7. RFP Responses Relative to Proposed Project

Resource Area	Change that the MRF Operations Procurement Process Responses Represents Relative to Proposed Project
Hydrology and Water Quality (Chapter 12)	Changes associated with the MRF Operations Procurement Process responses associated with hydrology and water quality would result from diverting OFMSW from the WRSL to be processed via CASP composting methods. This change would potentially result in a smaller overall landfill footprint, which would reduce the risk of liner breach and groundwater contamination. As a result, the MRF Operations Procurement Process responses would potentially result in fewer impacts related to hydrology and water quality; potential impacts are within the impacts evaluated for Plan Concepts 1 and 2. No additional analysis for hydrology and water quality is required.
Transportation (Chapter 16)	Changes associated with the MRF Operations Procurement Process responses would primarily correspond to onsite traffic flows resulting from the diversion of OFMSW from the WRSL to the organics management facility. There may also be a nominal increase in traffic during the 10-year operating agreement as materials diverted from the waste

Table 4-7. RFP Responses Relative to Proposed Project

Resource Area	Change that the MRF Operations Procurement Process Responses Represents Relative to Proposed Project
	stream are recovered and taken offsite. However, this increase in the near-term traffic would be less than the maximum trips associated with full buildout of the Waste Action Plan and evaluated in this EIR. Consequently, no additional analysis for transportation and traffic is required.
Utilities and Energy (Chapter 17)	<p>By shifting more of the waste stream to the organics management facility in the near term, the expanded use of ASP would have a corresponding increase in energy use in the near-term, in the form of electricity used for blowers.</p> <p>However, the throughput of material in the organics management facility during the 10-year operating agreement of the MRF RFP Operations Procurement is less than the total throughput envisioned for either Plan Concept 1 or Plan Concept 2 during the life of the Waste Action Plan and evaluated in this EIR. Accordingly, changes associated with the MRF Operations Procurement Process responses are already envisioned in the EIR for the proposed project, and no additional analysis for utilities and energy is required.</p>

Table 4-8 identifies chapters where the changes associated with MRF Operations RFP responses may result in slightly more substantive changes than those described in the EIR. These changes do not necessarily result in a higher level of potential impact, but a qualitative discussion has been included in their respective resource chapter.

Table 4-8. RFP Responses Addressed in Resource Chapters

Resource Area	Change that the MRF Operations Procurement Process Responses Represents Relative to Proposed Project
Air Quality (Chapter 6)	<p>Changes associated with the MRF Operations Procurement Process responses are expected to result in a change in air emissions and potential for odor generation resulting from the diversion of OFMSW from the WRS� and subsequently processed via CASP composting methods. The organic fraction of MSW has the potential to increase odors and would require additional controls and measures. CASP composting systems include covers on the composting piles, which reduce odor and greenhouse gas emissions. Changes are also anticipated related to the addition of an enclosed odor-controlled building for organics processing.</p> <p>Chapter 6, Air Quality, provides a qualitative discussion related to these changes.</p>
Greenhouse Gas Emissions and Climate Change (Chapter 10)	<p>The changes associated with the MRF Operations Procurement Process responses have the potential to change greenhouse gas emissions for the proposed project in the following ways:</p> <ul style="list-style-type: none"> ▪ Processing organics under physical covers is expected to decrease greenhouse gas emissions. ▪ Expanded CASP will result in a short-term increased use of electricity and corresponding increase in greenhouse gas emissions. ▪ Processing more material in the compost area and less in the landfill will result in a decrease in the quantity of methane generated in the landfill (and potentially emitted, primarily through surface emissions). <p>Chapter 10, Greenhouse Gas Emissions and Climate Change, provides additional analysis related to the changes described above.</p>