

CHAPTER FOUR
EVALUATION OF ALTERNATIVES

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4.1 Introduction

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (14 CCR 15126.6). The range of alternatives that need to be considered includes those which are within the “rule of reason”. The significant effects of the project dictate the alternatives to be considered. A full range of reasonable alternatives to the project are considered herein.

In evaluation of the alternatives to the project, it is useful to again review the project objective since the alternatives selected for evaluation should achieve most of the basic objectives of the project (§15126.6 (c)):

The objective of the project is to establish a plan for managing existing and anticipated sewer treatment needs in the City for a 20 year period and to implement capital improvement projects necessary to expand the capacity of and improve the functioning of the WWTP while preserving options for future expansion of the plant. Based on population projections, capacity will be expanded from 1.0 mgd to 1.9 mgd over the study period of this EIR.

Among the factors that may be taken into account in addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, and jurisdictional boundaries. Another is whether the proponent owns, or can reasonably acquire, control or otherwise have access to an alternative site [14 CCR 15126.6(f)(1)].

Evaluation of the feasibility of alternatives resulted in the selection of alternatives to be assessed in greater detail. The identification of alternatives is also guided by the need to address any unmitigated environmental impacts related to the project. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code §21002.1), the discussion of alternatives is to focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

This EIR analyzes the following alternatives: the No Project Alternative, Use of Alternative Secondary Process Components (Oxidation Ditches), and Construction of a New Hatch Road Pump Station. To maintain the identity of each alternative, and to simplify comparison, the alternatives discussed in this chapter are numbered. The numeric order is arbitrary and has no correlation to the degree of environmental impacts or the preference of alternatives. Although an alternative site is typically considered in an EIR, the presence of considerable infrastructure in service of the existing plant makes such an alternative impractical in this instance.

4.2 Alternative No. 1 - No Project Alternative

CEQA, through case law and statutory language, requires that the No Project Alternative be evaluated; under §15126.6(e)(2), *“the No Project Alternative shall discuss the existing conditions at the time the notice of preparation is published... as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”*

The purpose of the No Project Alternative is to allow the Lead Agency to compare the impacts of the proposed project with the impacts of not approving it.

Under the No Project Alternative, the Wastewater Treatment Plant Master Plan would not be adopted and the capacity of the WWTP would not be expanded. The WWTP is currently in non-compliance with the Regional Water Quality Control Board regulations and would remain in non-compliance. The Hughson General Plan would remain in effect, permitting growth to continue until the capacity of the WWTP is met. As noted in Chapter 2, the 2005 City of Hughson Municipal Service Review estimates that the population of the City will increase to 15,074 by 2025, which equates to a 4.8% annual increase. At that rate, anticipated flows would exceed treatment capacity in 2008 or 2009. When wastewater flows exceed the design capacity of the WWTP, the Regional Water Quality Control Board would be expected to impose a "cease and desist" order which would require a building moratorium in the City of Hughson to prevent effluent spills and other violations of the City's Waste Discharge Requirements. Once issued, the City may face fines or other sanctions until or unless an ordinance was adopted to strictly limit future connections to the wastewater system. Such a moratorium would typically restrict infill and commercial development as well as continued residential growth and would be required to be maintained until a treatment plant expansion is planned, financed and constructed.

4.3 Alternative No. 2 – (Master Plan Alternative No. 1) – Alternative Secondary Process Components

This alternative would replace the two proposed trapezoidal-section oxidation ditches, with three vertical-wall oxidation ditches, to be constructed in two phases. Two oxidation ditches would be constructed immediately and the third would be constructed to the west of the current treatment plant site as needed to serve growing demand. Both the proposed project and this alternative will require the purchase of land to the west of the current treatment plant, however, in this alternative, the purchase can be deferred until the third oxidation ditch is needed, in approximately 2016.

The CEQA Guidelines state [Sections 15126.6(f)(2)(A) and (B)]: *“The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR...If the lead agency concludes that no feasible locations exist, it must disclose the reasons for this conclusion, and shall include the reasons in the EIR”.*

Alternative No. 2 would generally achieve the project’s basic objective since it would result in additional wastewater treatment capacity to accommodate increased population. However, as

described in the Master Plan, this alternative may increase construction costs and may be associated with additional operational costs and related concerns.

In brief, analysis of the impacts of Alternative No. 2 compared with the impacts of the proposed project follows:

- Aesthetics: Less than significant impact; similar to the project.

The primary aesthetic impact of the proposed project is its relationship to adjacent residences. Those residences are primarily affected by equipment and buildings, which are unchanged in this alternative.

- Agricultural Resources: Significant impact; less than the project.

Deferring purchase of the adjacent land would permit the adjacent agricultural land to remain in production for an additional five to ten years; however, conversion will occur in this alternative upon the construction of the third oxidation ditch.

- Air Quality: Potentially significant impact; similar to the project.

Construction related emissions for Alternative No. 2 would be the same as those for the proposed project. The new equipment at the WWTP is similar in scope and operation.

- Biological Resources: Less than significant impact; greater than the project.

Alternative No. 2 would require construction of the first two oxidation ditches in close proximity to a stand of large ornamental trees on the adjacent property to the east. Such construction would require additional mitigation measures to protect the root systems which are presumed to extend onto the subject site.

- Cultural Resources: Potentially significant impact; similar to the project.

No cultural resources are known to exist at the subject site. Similar mitigation measures would be required to appropriately respond to resources found during construction.

- Geology, Soils, and Mineral Resources: Less than significant impact; similar to the project.

No significant impacts related to geology, soils or mineral resources have been identified.

- Hazards and Hazardous Materials: Less than significant impact; similar to the project.

None of the hazards associated with the operation of the WWTP are associated with the design or location of the oxidation ditches.

- Hydrology and Water Quality: Less than significant impact; similar to the project.

Waste Discharge Requirements and similar regulations would apply to the alternative. Deferring purchase of land for future development of oxidation ditches will not change the project impact to hydrology and water quality.

- Land Uses and Planning: Significant impact; similar to the project.

The proposed project will not conform to the Stanislaus County General Plan or Zoning Ordinance until a Sphere of Influence Amendment and Annexation and/or a General Plan Amendment is secured by the City of Hughson. Deferring purchase of land for construction of the oxidation ditches will delay the requirement to secure these approvals but will not affect their magnitude.

- Noise: Significant impact; similar to the project.

Construction equipment, hours of operation, etc., will be similar to the proposed project.

- Population and Housing: Less than significant impact; similar to the project.

Alternative No. 2 does not change the proposed capacity of the WWTP. Both alternatives will support the population anticipated in the General Plan for 2025.

- Public Services: No impact; similar to the project.

None of the municipal services provided to the WWTP are dependent upon the configuration of the oxidation ditches.

- Recreation: No impact; similar to the project.

Both the project and Alternative No. 2 will have no effect on recreation.

- Transportation/Traffic: Less than significant impact; similar to the project.

No change to the number of employees, or number of required truck trips would occur as a result of Alternative No. 2.

- Utilities and Service Systems: Less than significant impact; similar to the project.

The capacity and operations of the plant are unchanged by Alternative No. 2.

4.4 Alternative No. 3 (Master Plan Alternative 2A) – Construct New Hatch Road Pump Station

The existing Hatch Road Pump Station must be removed or relocated to accommodate anticipated road improvements. The project description calls for the pump station to be removed entirely and replaced with a new gravity sewer line from Hatch road to the WWTP Site. Alternative No. 3 proposes to remove the existing pump station and construct a new pump station at approximately the same location, set back from the proposed roadway. The project description calls for the installation of a new 36 inch gravity line from Hatch road to the WWTP

site. Alternative 3 would require the installation of a new 20 inch force main line along the same alignment.

In brief, analysis of the impacts of Alternative No. 3 is compared with the impacts of the proposed project follows:

- Aesthetics: No impact; similar to the project.

The Hatch Road Pump station would not be a source of light and glare and would not be situated to block scenic vistas.

- Agricultural Resources: Significant Impact; similar to the project.

The proposed project would essentially the same footprint as the proposed project, with the exception of a modestly sized pumping station. Little additional land would be taken out of production to accommodate Alternative No. 3.

- Air Quality: Significant Impact; greater than the project.

Construction related emissions for Alternative No. 3 would be the same as those for the proposed project. Most construction emissions are associated with site preparation and grading, and with demolition, both of which would occur to similar degrees in the project and in the Alternative. There may be modest air quality impacts associated with the construction of the pumping station. Although the pumping station would have odor control mechanisms, Alternative No. 3 requires wastewater handling in closer proximity to potentially sensitive receptors than would occur in the project description. This has the potential to increase impacts related to odors.

- Biological Resources: Less than Significant Impact; similar to the project.

No biological resources have been identified at the location of the Hatch Road Pumping Station.

- Cultural Resources: Less than Significant Impact; Similar to the project.

No cultural resources are known to exist at the subject site. Similar mitigation measures would be required to appropriately respond to resources found during construction.

- Geology, Soils, and Mineral Resources: Less than Significant Impact; Similar to the Project.

No impacts related to Geology, Soils or Mineral Resources have been identified. Constructing a replacement pumping station at Hatch Road will not create impacts to these resources.

- Hazards and Hazardous Materials: Less than Significant Impact; Similar to the project.

None of the Hazards associated with the operation of the WWTP are associated with the design or location of the pumping station.

- Hydrology and Water Quality: Potentially significant impact; similar to the project.
- Waste Discharge Requirements and similar regulations would apply to the alternative. Deferring purchase of land for future development of oxidation ditches will not change the project impact to hydrology and water quality.
- Land Uses and Planning: Significant impact; similar to the project.

The proposed pumping station would conform to the applicable General Plan and Zoning Ordinance.

- Noise: Less than Significant impact; similar to the project.

As the proposed project also requires construction in the vicinity of the Hatch Road pumping station, construction noise would not be notably increased through Alternative No. 3. This Alternative would maintain a continuous pumping operation in the vicinity of existing residences; however, equipment will be fully enclosed, effectively reducing potential noise impacts.

- Population and Housing: Less than Significant impact; similar to the project.

Alternative No. 3 does not change the proposed capacity of the WWTP. Both Alternatives will support the population anticipated in the General Plan for 2025, leaving little or no capacity remaining for growth beyond 2025.

- Public Services: No significant impacts; similar to the project.

None of the municipal services provided to the WWTP are dependent upon the removal of the pumping station.

- Recreation: No significant impacts; similar to the project.

Replacing the pumping station would have no effect on the recreational impacts of the project.

- Transportation/Traffic: Less than significant impact; similar to the project.

No change to the number of employees, or number of required truck trips would occur as a result of the proposed Alternative No. 3.

- Utilities and Service Systems: Less than significant impact; similar to the project

The capacity and operations of the plant are unchanged by Alternative No. 3. Therefore, there will be no change in the demand for water; wastewater treatment; solid waste disposal, etc. as a result of the project.

4.5 Environmentally Superior Alternative

CEQA requires that the alternatives be compared and the environmentally superior alternative identified. A comparison of the alternatives can be found in Table 4-1. The No Project

Alternative is the environmentally superior alternative; however, it does not achieve the project objective of ensuring adequate infrastructure to accommodate planned growth in Hughson, nor does it maintain compliance with the regulations of the Regional Water Quality Control Board. Moreover, per CEQA Guidelines Section §15126.6(e)(2), if the No Project Alternative is the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. The proposed project is the next most environmentally superior project alternative.

**Table 4-1
Environmental Impacts of Alternatives
Compared to Project**

Alternative	Meets Project Goals	Aesthetics	Ag. Resources	Air Quality	Biology	Cultural	Geology	Hazards	Hydrology
Project	Yes	Less than significant	Significant	Less than significant with mitigation	Less than significant with mitigation	Less than significant with mitigation	Less than significant	Less than significant	Less than significant
No Project	No	Less	Less	Less	Less	Less	Less	Less	Less
Alternative No. 2 – Alternative Secondary Treatment	No	Same	Less	Less	Same	Same	Same	Same	Same
Alternative No. 3 – Hatch Road Pumping Station	Yes	Same	Greater	Same	Same	Same	Same	Same	Same

Alternative	Land Use	Noise	Population and Housing	Public Services	Recreation	Transportation and Traffic	Utilities
Project	Significant	Less than significant with mitigation	Less than significant	Less than significant	Less than significant	Less than significant	Less than significant
No Project	Less	Less	Less	Less	Less	Less	Less
Alternative No. 2 – Alternative Secondary Treatment	Same	Less	Less	Same	Same	Same	Same
Alternative No. 3 – Hatch Road Pumping Station	Same	Greater	Same	Same	Same	Same	Same