

## 5.0 Alternatives

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Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines specifies that an environmental impact report (EIR) must describe a reasonable range of feasible alternatives to the project or project location that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project, and evaluate the comparative merits of the alternatives. Additionally, the No Project Alternative (see Section 5.1) must also be analyzed in a Draft Supplemental EIR (SEIR). An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is also not required to consider alternatives that are infeasible. The purpose of the discussion of alternatives is to focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of project objectives or would be more costly.

The Master Plan Draft EIR (ESA, 2000) evaluated three alternative water reclamation master plans, with different level of irrigation, storage, and participation in the Santa Rosa Geysers Recharge project. The purpose of the alternatives analysis in this Draft SEIR is to evaluate alternatives to the proposed Eastside Road Storage Project within the context of the approved Water Reclamation Master Plan. Specifically, the approved "Alternative 4X" identified a suite of projects to reach the stated Master Plan Objectives, including the Geysers Recharge project, expansion of the Windsor Water Reclamation Plant, additional irrigation, and additional irrigation infrastructure (ESA, 2001). It is important to note that these approved activities will be pursued by the Town *in addition to* the proposed Project to meet Town water storage objectives; they are not alternatives to the proposed Project.

This section of the Draft SEIR describes several alternatives to the Project. The only significant unavoidable impacts from the proposed Project identified in this Draft SEIR are the loss of mixed oak woodland and the loss of protected trees. As noted above, CEQA requires this Draft SEIR to describe a reasonable range of feasible alternatives to the Project that could feasibly attain most of the basic Project objectives and would avoid or substantially lessen significant environmental impacts of the proposed Project. The objectives of the Project, which were considered in selecting a range of alternatives to evaluate, are to:

- Continue implementation of the Water Reclamation Master Plan to address the buildout ADWF of 3.0 mgd.
- Provide a minimum of 125 MG of additional recycled water storage capacity by water year 2012 (October 2011-September 2012).
- Provide the maximum pond storage capacity consistent with the Master Plan, in a cost-effective manner and in compliance with applicable regulations.

In accordance with the CEQA Guidelines and the stated objectives of the Project, the following alternatives were selected for evaluation in this section of the Draft SEIR:

- No Project Alternative
- Smaller Footprint Alternative
- Pond S Alternative

Descriptions of these alternatives and an evaluation of their potential impacts relative to the proposed Project are provided in Sections 5.1 through 5.3 below. A summary of all alternatives compared to the proposed Project is presented in Section 5.4. Other alternatives that were considered but were not carried forward for evaluation are described in Section 5.5.

## 5.1 No Project Alternative

The purpose of describing and analyzing a No Project Alternative is to allow decision-makers the opportunity to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project Alternative represents ongoing activities and operations as outlined in the State CEQA Guidelines, Section 15126, as “a condition that would be reasonably expected to occur if the project were not approved,” based on current plans and consistent with available infrastructure and community services.

In the case of this Project, the No Project Alternative is the case where the proposed Project, as defined and located, would not occur. The Master Plan would be carried out as approved by the Town Council in 2001, but without the additional storage provided by the proposed Project. The objectives of the Project would not be met by the No Project Alternative. The Town would be unable to provide a minimum of 125 MG of additional recycled water storage capacity by water year 2012 and would not provide any of the storage capacity included in the Master Plan.

The No Project Alternative could result in environmental impacts greater than for the proposed Project in some resource areas:

- Water Quality. The Town would be unable to make up its future water storage deficit and the result could be discharge of treated wastewater into Mark West Creek in violation of the Town’s NPDES permit.
- Biological Resources. Degradation of water quality in Mark West Creek could be greater for the No Project Alternative than for the proposed Project because it would not always be possible to comply with treated wastewater discharge limitations into Mark West Creek if ADWF continued to increase.
- Land Use. The inability of the Town to meet NPDES discharge permit requirements would likely affect overall buildout of the *Town’ of Windsor General Plan – 2015* and have a substantial adverse effect on planned land use. Projected development could become sharply limited as the Town would need to consider a moratorium on sewer connections.

- Utilities. Significant impacts to utilities would be expected to occur with a No Project Alternative due to the water storage deficit. The existing wastewater system would be faced with meeting the NPDES discharge permit requirements without sufficient water storage facilities. Alternative storage and disposal facilities would be required.

Assuming no development were to occur on the 168-acre parcel, impacts to loss of mixed oak woodland, other biological resources, hydrology, groundwater, visual resources, geology, soils, seismicity, and traffic associated with the proposed Project would not occur with the No Project Alternative. However, if the Town does not use the parcel for utility purposes, it will be required to sell it. The future use of the parcel under other ownership (private or public) is unknown.

## 5.2 Smaller Footprint Alternative

The Smaller Footprint Alternative would include construction of a smaller pond on the proposed Project site. Therefore, a smaller pond alternative of 140 MG of storage (compared to 215 MG for the proposed Project) was evaluated in the *Technical Memorandum 3.7: Preliminary Analysis Summary Report, Windsor Eastside Road Storage Project* (CH2M HILL, 2007; included as Appendix J). This alternative would meet most of the Project objectives, although it would provide less storage than the Project towards meeting the goal of providing the maximum pond storage capacity consistent with the Master Plan, in a cost-effective manner and in compliance with applicable regulations. Although impacts from this alternative would reduce some impacts of the proposed Project, impacts would generally be of comparable significance. For example, the Smaller Footprint Alternative would reduce the amount of mixed oak woodland that would require removal compared to the proposed Project by decreasing the total area of construction impact. However, approximately 20 acres of mixed oak woodland would still be permanently lost, a significant impact. Impacts to some resources could be greater than for the proposed Project:

- Water Quality. In the long term, the Town may not be able to make up future water storage deficit due to the small size of this alternative, and the result could be the discharge of treated wastewater into Mark West Creek in violation of the Town's NPDES permit. While this impact would be less than for the No Project Alternative, it is greater than the impact to water quality under the proposed Project.
- Land Use. The inability of the Town to meet NPDES discharge permit requirements could affect buildout of the *Town of Windsor General Plan – 2015* and have an adverse effect on planned land use. Projected development could be limited as the Town might need to consider a moratorium on sewer connections in order to provide adequate wastewater services to residential, commercial, and industrial activities.
- Utilities. In the longer term, significant utilities impacts could be expected with a Smaller Footprint Alternative due to the water storage deficit. The existing wastewater system would be faced with meeting the NPDES discharge permit requirements without sufficient water storage facilities. Alternative storage and disposal facilities may be required.

Impacts to traffic, noise, air quality, hydrology, groundwater, visual resources, geology, soils, and seismicity for the Smaller Footprint Alternative would be similar to those for the proposed Project.

### 5.3 Pond S Alternative

Although a smaller acreage of mixed oak woodland (approximately 16 acres) would be removed compared to Pond T, the Master Plan EIR found that the loss of mixed oak woodland from Pond S would be a significant and unavoidable impact, even with implementation of mitigation measures (ESA, 2001).

Construction of a comparable storage pond at the Pond S site was included in preliminary feasibility analysis of the two storage pond sites, as described in the *Technical Memorandum 3.7: Preliminary Analysis Summary Report, Windsor Eastside Road Storage Project* (CH2M HILL, 2007). Most impacts from Pond S would be similar to impacts from the proposed Project. As with Pond T, construction impacts to noise, air quality, and traffic would be significant but mitigable. Construction of a Pond S would result in permanent impacts to a smaller quantity of intermittent drainages compared to Pond T, but would also result in substantial adverse impacts to seasonal wetlands that would not occur with the proposed Project (CH2M HILL, 2007). Impacts to visual resources from Pond S would be substantially greater than for Pond T because the Pond S west dam would be much more visible from Eastside Road; in addition, the Pond S east dam would be visible from Mark West Station Road. The Pond S Alternative would also result in water quality, land use, and utilities impacts similar to the Smaller Footprint Alternative.

Pond S, with a feasible storage volume of approximately 125 MG, would meet most of the Project objectives, although it would provide less storage than the Project towards meeting the goal of providing the maximum pond storage capacity consistent with the Master Plan, in a cost-effective manner and in compliance with applicable regulations. The preliminary analysis (CH2M HILL, 2007) indicated that although there appears to be no overriding environmental issues that would indicate a strong advantage of one site over the other, the proposed Project site is more topographically efficient than Site S and will have significantly lower construction costs per million gallons of storage (CH2M HILL, 2007).

### 5.4 Alternatives Analysis Summary and Environmentally Superior Alternative

The Pond S Alternative meets the Project objectives discussed in Section 2.2 (Project Objectives). Although the No Project Alternative and Smaller Footprint Alternative would each reduce the level of impact for some resource areas compared to the proposed Project, they would not meet all key Project objectives and would result in greater impacts for some resource areas, including water quality and land use. A summary of the alternatives analysis is provided in Table 5-1. This table shows a comparison for key resource areas for which alternatives may have different levels of impact compared to the proposed Project.

The environmentally superior alternative is the No Project Alternative. CEQA Guidelines Section 15126.6 states that if the No Project Alternative is the environmentally superior

alternative, then the EIR shall also identify an environmentally superior alternative from among the other alternatives. Not including the No Project Alternative, the environmentally superior alternative is the Smaller Footprint Alternative. This alternative would generally have similar or less severe impacts than the Project or the Pond S Alternative; it would not, however, meet all Project objectives.

TABLE 5-1  
Alternatives Analysis Summary

Alternative	Meets Project Objectives	Level of Impact Compared to Proposed Project					
		Biological Resources	Hydrology/ Groundwater	Visual Resources	Geology, Soils, Seismicity	Construction Impacts	Other Impact Areas
No Project Alternative	No	Less impact	No construction or operation impact; potential discharge impacts to Mark West Creek	No impact	No impact	No impact	Greater land use, utility, and NPDES permit compliance impacts
Smaller Footprint Alternative	Some	Somewhat less	Similar construction and operation impacts; potential discharge impacts to Mark West Creek	Similar impact	Similar impact	Similar impact	Greater land use, utility, and NPDES permit compliance impacts
Pond S Alternative	Some	Similar impact	Similar impact	Greater impact	Similar impact	Similar impact	Greater land use, utility, and NPDES permit compliance impacts

## 5.5 Alternatives Considered but Removed from Further Evaluation

The alternatives described in the subsections below were initially considered but were removed from further consideration because they did not meet the Project objectives or were determined to be infeasible.

### 5.5.1 Alternative Locations

Three potential pond locations were included in the approved Master Plan (Ponds S, T [the proposed Project site], and Z). These locations are currently owned by the Town. Pond Z would consist of expansion of an existing pond and would provide the smallest increment

of additional storage at 38 MG. This storage volume is inadequate to meet the Project objectives of 125 MG, and the site was determined to be geotechnically infeasible. Therefore, Pond Z was eliminated from further consideration early in the alternatives discussion. The Pond S alternative was evaluated in greater detail and is discussed above in Section 5.3.

The Master Plan EIR evaluated an additional 12 potential recycled water storage sites that were not included in the approved Master Plan. These sites are not currently owned by the Town and acquisition would require negotiation with existing property owners to agree on purchasing terms. The need for the Town to acquire ownership of the sites could result in significant project delay. The Town forecasted a need for additional recycled water storage by water year 2012 or potential violation of the NPDES permit would likely occur. To avoid this risk of water quality impacts and regulatory infraction, the Town did not consider project sites not currently under Town ownership.

### 5.5.2 Both Ponds S and T

As discussed in Section 5.3, Pond S was included in the detailed preliminary feasibility analysis (CH2M HILL, 2007). A range of storage capacities for both ponds was considered in this analysis. The feasibility study recommended that the Town proceed with preliminary design and CEQA environmental review for a storage pond at Site T, while preserving the option for an additional future storage pond at Site S. By taking advantage of economies of scale, but avoiding approaching potential site constraints for the largest pond size, pursuit of a medium-size pond at Site T (the proposed Project) that could provide approximately 215 MG of additional recycled water storage would alleviate the current need for simultaneous development of Pond S. Development of the proposed Project should be sufficient to satisfy the Town's storage needs for approximately 10 years while deferring construction of additional storage (and associated environmental impacts) until it is needed.

### 5.5.3 Alternative Liner

A variety of liner types to restrict pond leakage were evaluated. The proposed Project includes the use of a geomembrane liner that could be covered for added protection or left exposed. Another option considered was a processed clay liner. This clay liner would consist of a native soils mixed onsite with imported bentonite (for strength and impermeability). The clay liner would be covered with a 2-foot thick layer of riprap and bedding to protect it from erosion and desiccation cracking due to sun exposure and weather. Of the liner alternatives studied, the Town eliminated the clay liner from further consideration because it had the poorest performance at the highest cost of the options under consideration, and would require significantly greater import of construction materials.

## 5.6 References

CH2M HILL. 2007. *Technical Memorandum 3.7: Preliminary Analysis Summary Report, Windsor Eastside Road Storage Project*. Prepared for Town of Windsor. August. Presented in this document as Appendix J.

Environmental Science Associates (ESA). 2000. *Town of Windsor Water Reclamation Master Plan for Treatment, Storage and Disposal Draft Environmental Impact Report*. Prepared for the Town of Windsor. October.

\_\_\_\_\_. 2001. *Water Reclamation Master Plan for Treatment, Storage and Disposal Final Environmental Impact Report*. Certified by the Town of Windsor on February 7, 2001 and compiled in May 2001.

Ogden Environmental & Energy Services Co. (Ogden). 1996. *Town of Windsor General Plan – 2015*. Adopted by the Town of Windsor. March.