

7 ALTERNATIVES

7.1 INTRODUCTION TO ALTERNATIVES ANALYSIS

State CEQA Guidelines §15126.6(a) requires that EIRs evaluate “a range of reasonable alternatives to the project, or to the location of the project, which would 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.” The project objectives are stated in Section 3.4 (Project Objectives) of this EIR. Alternatives are used to determine whether or not a variation of the proposed project would reduce or eliminate significant project impacts within the basic framework of the objectives. State CEQA Guidelines §15126.6(f) specifies that the range of alternatives is governed by the “rule of reason,” requiring evaluation of only those alternatives “necessary to permit a reasoned choice.” Further, an EIR “need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative” (State CEQA Guidelines §15126.6[f][3]).

State CEQA Guidelines §15126.6(e)(1) requires that, among other alternatives, a “no project” alternative be evaluated in comparison to the proposed project. State CEQA Guidelines §15126.6(e)(2) requires that the no project analysis “discuss the existing conditions, 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.” State CEQA Guidelines §15126.6(e)(3)(A) states that when a project “is the revision of an existing land use or regulatory plan, policy or ongoing operation, the ‘no project’ alternative will be the continuation of the existing plan, policy, or operation into the future.” Accordingly, a No-Project Alternative is analyzed in this EIR, which contemplates the continuation of the existing 1987 Zone 40 WSMP.

Other alternatives considered and evaluated below are (1) Increased Water Recycling Alternative and (2) Maximized Use of Remediated Water Alternative. Potential environmental impacts for each alternative are provided in comparison to the proposed project. The advantages and disadvantages of each alternative, compared to the proposed project, are presented in Table 7-1. Any significant environmental impacts created exclusively by an alternative are also identified.

State CEQA Guidelines §15126.6 (c) provides that an EIR “should also identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” Accordingly, Section 7.7 (Alternatives Previously Considered but Rejected) provides a discussion of increased diversion of surface water from the Sacramento River.

Environmental Issue Area	No-Project Alternative	Increased Water Recycling Alternative	Maximized Use of Remediated Water Alternative
Land Use	Similar	Increased	Increased
Aesthetics	Similar	Similar	Similar
Air Quality	Similar	Similar	Similar
Noise	Similar	Similar	Similar
Traffic	Similar	Similar	Similar
Biological Resources	Similar	Reduced	Reduced
Water Resources	Similar	Slightly reduced	Slightly reduced
Cultural Resources	Similar	Similar	Similar
Geology and Soils	Similar	Similar	Similar
Public Health and Safety	Similar	Similar	Similar
Public Services and Utilities	Similar	Similar/slightly increased	Similar
Environmentally Superior	Similar	No	Yes
Similar = Impacts of the alternative are similar to those of the proposed project. Reduced = Impacts of the alternative are less than those of the proposed project. Increased = Impacts of the project are greater than those of the proposed project.			

The alternatives described above that consider enhanced amounts of recycled water or remediated water to supplement Zone 40 service area water supplies would be used to carry out the land uses approved by adoption of General Land Use plans. Growth and development would occur first in the UPA, followed by areas in the 2030 Study Area but outside the UPA and then areas outside the 2030 Study Area but in the USB. Because the 2030 Study Area is approximately one-half the area of Zone 40 and the area outside the 2030 Study Area is designated for ultimate urban use, additional recycled and remediated water would serve to support more urban growth beyond 2030 using known water resources at the time the 2002 Zone 40 WSMP was prepared. This is in contrast to urban water service areas that are built out, where reductions in urban water demand through water conservation and use of recycled and remediated water would result in reduced urban groundwater pumping or surface water diversions. The consequences of these alternatives, therefore, could be a facilitation of urban growth within the area designated for such growth by the land use authorities, but beyond the extent envisioned possible with existing known water supplies delineated as the Zone 40 2030 Study Area. Environmental impacts for the above alternatives (Table 7-1) are shown to be reduced compared to the 2002 Zone 40 WSMP because the use of recycled or remediated water was assumed to be a replacement for additional groundwater pumping, but impacts (e.g., land use, biology) could be greater because of the potential facilitation of additional

urban growth beyond the 2002 Zone 40 WSMP's planning horizon through the augmentation of water supplies.

7.2 NO-PROJECT ALTERNATIVE

7.2.1 DESCRIPTION

The No-Project Alternative assumes that existing conditions in the 2030 Study Area are continued and that the existing volume (4,400 afy) of recycled water would be used within Zone 40. In the absence of an approved 2002 Zone 40 WSMP, the SCWA would continue to operate and supply water to Zone 40 in accordance with the recommendations of the approved 1987 WSMP as constrained by the requirements of Conservation Element Policy 20 (CO-20) and the County development cap, and modified by the adopted Water Forum Agreement and adopted specific and community plans within the 2030 Study Area. CO-20 requires that development in identified growth areas have an adopted water supply master plan and the necessary agreements and financing in place for water supply facilities. The development cap limits the number of housing units that can be constructed in identified growth areas until the necessary agreements for water supplies are in place. The Water Forum Agreement includes a negotiated sustainable yield for the Central Groundwater Basin of 273,000 afy. Therefore, SCWA, in combination with other water supply purveyors in the Central Basin that are signatory to the Water Forum Agreement, cannot extract groundwater in amounts that exceed the negotiated sustainable yield. The adopted specific and community plans have modified the boundaries of the 1987 WSMP service area to include areas and land uses proposed in the plans.

The 1987 WSMP would allow all developments identified in the 1987 WSMP and specific and community plans adopted by the County subsequent to the 1987 WSMP to build out to projected densities, and surface water wheeled through the City of Sacramento Water Treatment Plant would be maximized to full water entitlement amounts (15,000 afy). Similar to the 2002 Zone 40 WSMP, the 1987 WSMP included an evaluation of a surface water diversion structure on the American or Sacramento River and construction of a surface water treatment plant in Zone 40. Under this alternative, construction of a surface water diversion structure and water treatment plant could occur, which would allow a maximized conjunctive water supply system.

Facilities that could be constructed if the No-Project Alternative were selected would be similar to facilities recommended in the 2002 Zone 40 WSMP and evaluated in this EIR. However, it is necessary to evaluate the 2002 Zone 40 WSMP as a separate independent action because several conditions have changed since the adoption of the 1987 WSMP, including modification of the study area for the WSMP; implementation of CO-20 (see Section 4.1, Land Use); implementation of a development cap for new development in Zone 40; adoption of the Water Forum Agreement, which limits the sustainable yield of the underlying groundwater basin to 273,000 afy; and adoption of several specific and community water supply master plans that have modified the original 1987 WSMP. Although the 2002 Zone 40 WSMP and the No-

Project Alternative are substantially similar, for purposes of satisfying CEQA requirements, the No-Project Alternative is evaluated below.

7.2.2 ENVIRONMENTAL ANALYSIS

LAND USE

Implementing the No-Project Alternative would result in land use impacts similar to those of the proposed project because new groundwater treatment, extraction, and distribution facilities and surface water diversion conveyance facilities would be constructed. Surface water delivered to Zone 40 under this alternative would be diverted and treated at the City of Sacramento's Water Treatment Plant or at a separate surface water diversion structure on the American or Sacramento River. Specific locations of the conveyance pipelines and groundwater facilities are not known at this time. Construction of these facilities could result in removal of Prime Farmland, Farmland of Statewide Importance, or Farmland of Local Importance. This would further contribute to the incremental loss of designated farmland in the local area, for which no feasible mitigation is available. Similar to the proposed project, this would be a significant and unavoidable impact of this alternative. Cumulative, indirect effects of growth in the 2030 Study Area would be similar to those of the proposed project.

AESTHETICS

Implementing this alternative would result in aesthetic impacts similar to those of the proposed project. This alternative would result in similar less-than-significant aesthetic impacts on the Lower Sacramento River because surface water diversion facilities would be constructed. Facilities required under this alternative could require nighttime illumination, which could adversely affect nearby sensitive receptors. Mitigation recommended for the project would reduce these nighttime illumination impacts to a less-than-significant level. This alternative would also require the construction of new surface water conveyance pipelines and additional groundwater treatment, extraction, and distribution facilities, construction of which could result in substantial changes in the visual character of the area depending on their location. This would be a significant and unavoidable impact for the project and the No-Project Alternative.

AIR QUALITY

Implementing this alternative would result in construction-related and operational air quality impacts similar to those of the proposed project because construction of new surface water conveyance pipelines and groundwater treatment, extraction, and distribution facilities would occur. Mitigation recommended for the project would reduce these impacts to a less-than-significant level.

NOISE

Implementing the No-Project Alternative would result in construction-related and operational noise impacts similar to those of the proposed project because construction of new surface water conveyance pipelines and groundwater treatment, extraction, and distribution facilities would occur. Mitigation recommended for the project would reduce these impacts to a less-than-significant level.

TRAFFIC

Implementing this alternative would result in traffic impacts similar to those of the proposed project. Temporary construction-related traffic impacts would occur with project construction. Mitigation recommended for the project would reduce these construction-related traffic impacts to a less-than-significant level. Maintenance of the groundwater extraction, treatment, and distribution facilities would generate a minor amount of vehicle trips on local roadways. These trips are negligible in comparison to the average daily trips accommodated by these roadways. No decrease in level of service (LOS) would occur. Therefore, construction-related and long-term operational impacts would be less than significant.

BIOLOGICAL RESOURCES

Implementing this alternative would result in biological and fishery resource impacts similar to those of the proposed project. Similar terrestrial biological resource impacts would occur because groundwater treatment, extraction, and distribution facilities would be constructed and indirect effects of growth would occur. This alternative would result in similar fishery impacts in the Sacramento River because increased surface water diversions could occur under this alternative. Groundwater extraction under the No-Project Alternative would be similar to that under the proposed project because a maximized conjunctive use water supply system would be implemented. Consequently, groundwater influence on fishery and biological resources in the Cosumnes River would be similar to that of the proposed project. This alternative could result in reduced riverflows in the Cosumnes River that could adversely affect fishery resources and riparian vegetation along the river. Mitigation recommended for the proposed project would reduce this alternative's impacts to a less-than-significant level.

WATER RESOURCES

Implementing this alternative would result in hydrology, water quality, and groundwater impacts similar to those under the proposed project because similar volumes of surface water would be delivered to Zone 40 and similar volumes of groundwater would be extracted under this alternative.

CULTURAL RESOURCES

Implementing this alternative would result in cultural resource impacts similar to those of the proposed project. Previously unidentified cultural resources could be disturbed during

construction of the groundwater treatment, extraction and distribution facilities, and surface water conveyance pipelines. Disturbance of these resources would be a potentially significant impact. Mitigation recommended for the proposed project would reduce this impact to a less-than-significant level.

GEOLOGY AND SOILS

Implementing this alternative would result in geology and soils impacts similar to those of the proposed project. It would result in construction that would disturb surface soil, but mitigation that requires recommended projects to be consistent with the County's Construction Management Program and Grading and Erosion Control Ordinance would reduce impacts to less-than-significant levels.

PUBLIC HEALTH AND SAFETY

Implementing this alternative would result in public health and safety impacts similar to those of the proposed project because existing volumes of recycled water would continue to be used in this alternative. Further, similar quantities of hazardous materials (e.g., chlorine) would be used to treat groundwater before delivery to Zone 40 customers.

PUBLIC SERVICES AND UTILITIES

Implementing this alternative would result in utility and service system impacts similar to those of the proposed project. The facilities required for this alternative would result in similar demands for wastewater, electricity, and natural gas services compared to the proposed project.

CONCLUSION

Implementing the No-Project Alternative would result in impacts similar to those of the proposed project. The No-Project Alternative would be environmentally similar to the proposed project because it would provide the benefits associated with the proposed project (i.e., stabilization of the groundwater aquifer, maximized surface water deliveries). The No-Project Alternative would be the continuation of status quo.

7.3 INCREASED WATER RECYCLING ALTERNATIVE

7.3.1 DESCRIPTION

Implementing the Increased Water Recycling Alternative would maximize the use of treated wastewater (recycled water) from the Sacramento Regional Wastewater Treatment Plant for nonpotable consumptive uses, such as irrigation, industrial use, and wetlands management. Increased use of recycled water would decrease SCWA's reliance on groundwater to meet future nonpotable water demands in the planning horizon. Although capable of reducing groundwater pumping, this alternative could not entirely substitute for all groundwater and/or surface water supplies because of the limited uses of recycled water.

The Sacramento Regional County Sanitation District (SRCSD) is conducting a feasibility study to determine the role of recycled water in countywide water management and to evaluate recycled water markets, particularly for agriculture and landscape irrigation. The SRCSD is considering implementation of a large-scale (i.e., 30-40 mgd) water recycling program if studies determine that a market exists. Currently, SRCSD operates a 5-mgd water recycling facility at the SRWWTP and has plans to expand this facility to 10 mgd within the next 5 years (Robles, pers. comm., 2003).

Recycled water is delivered to the south Sacramento County area for landscape irrigation. Demand for recycled water is seasonal and generally occurs from April to November (approximately 7 months). The SRCSD delivers approximately 3.5 mgd of recycled water to the area south of the SRWWTP during the demand period (Robles, pers. comm., 2003). This is approximately 70% of the capacity of the recycled water treatment facility and corresponds to a recycled water supply of 2,000-3,000 afy. Implementation of a large-scale (i.e., 30-40 mgd) water recycling program could result in the delivery of 10,000-20,000 afy of recycled water to SRCSD's service area of which a portion could be delivered to Zone 40.

Availability of recycled water would offset groundwater pumping by a similar volume and would be used for nonpotable consumptive uses, such as landscape irrigation (e.g., golf courses, roadway medians, agricultural irrigation). Use of recycled water for irrigation in the 2030 Study Area would reduce groundwater extractions in the 2030 Study Area within the planning horizon and would similarly reduce return flows to the Sacramento River. The potential reduction of pumping in the Central Basin cannot be quantified until the feasibility study is completed. Because the SRCSD facilities extend beyond the Central Basin, it is likely that recycled water would be used beyond the boundaries of the Central Basin and Zone 40. Conveyance, storage, and distribution facilities required for use and distribution of recycled water in the 2030 Study Area would include pump stations, storage tanks, scalping plants, reservoirs, pipelines, and canals.

Although implementing this alternative would reduce the volume of groundwater extracted from the underlying groundwater basin to serve growth within the 2030 Study Area, additional recycled water would serve to support more urban growth beyond 2030 using known water resources at the time the 2002 Zone 40 WSMP was prepared. The consequences of this alternative, therefore, could be a facilitation of urban growth within the area designated for such growth by the land use authorities, but beyond the extent envisioned possible with existing known water supplies.

7.3.2 ENVIRONMENTAL ANALYSIS

LAND USE

Implementing this alternative would result in similar but slightly increased land use impacts compared to the proposed project. This alternative would involve constructing new recycled water distribution facilities in addition to proposed project facilities. Construction of these facilities could result in increased development of Prime Farmland, Farmland of Statewide

Importance, or Farmland of Local Importance. This would further contribute to the incremental loss of designated farmland in the local area. No feasible mitigation is available to reduce this impact to a less-than-significant level. Similar to the proposed project, this would be a significant and unavoidable impact. Cumulative indirect effects of growth in the 2030 Study Area would be similar to those of the proposed project. However, this alternative could result in increased indirect growth effects in the areas outside of the 2030 Study Area but in Zone 40 and the USB because of increased availability of groundwater.

AESTHETICS

Implementing this alternative would result in visual impacts similar to those of the proposed project because it would construct the same number of surface water and groundwater extraction, treatment, and distribution facilities. Because recycled water would not likely be used in lieu of surface water, visual impacts of this alternative along the Sacramento River would be similar to those of the proposed project. Implementing this alternative would require the construction of additional facilities for the treatment and distribution of recycled water, which could substantially change the visual character of the area in which they are located. This would be a significant and unavoidable impact for the project and this alternative.

AIR QUALITY

Implementing this alternative would result in construction-related and operational air quality impacts similar to those of the proposed project. Similar to the proposed project, air quality impacts would occur with construction and operation of surface water, groundwater, and recycled water extraction, treatment, and distribution facilities. Mitigation recommended for the proposed project would reduce these impacts to a less-than-significant level.

NOISE

Implementing this alternative would result in construction-related and operational noise impacts similar to those of the proposed project. Similar to the proposed project, noise impacts would occur with construction and operation of surface water, groundwater, and recycled water extraction, treatment, and distribution facilities. Mitigation recommended for the proposed project would reduce these impacts to a less-than-significant level.

TRAFFIC

Implementing this alternative would result in traffic impacts similar to those of the proposed project. Temporary construction-related traffic impacts would occur with project construction. Mitigation recommended for the project would reduce these construction-related traffic impacts to a less-than-significant level. Maintenance of the surface water, groundwater, and recycled water extraction, treatment, and distribution facilities would generate a minor amount of vehicle trips on local roadways. These trips are negligible in comparison to the average daily trips accommodated by these roadways. No decrease in level of service (LOS) would

occur. Therefore, construction-related and long-term operational impacts would be less than significant under this alternative.

BIOLOGICAL RESOURCES

Implementing this alternative would result in reduced biological resource impacts compared to the proposed project because it would reduce the amount of groundwater extracted from the underlying groundwater basin. Fishery resource impacts would be similar to those of the proposed project because the volume of surface water diverted from the Sacramento River would be similar to that diverted under the proposed project. However, this alternative would reduce SCWA's reliance on the underlying groundwater basin. This would likely result in reduced fluctuations in groundwater elevations in the underlying basin and along the Cosumnes River. Although this alternative may increase riverflows in the Cosumnes River compared to the proposed project, the magnitude of these fluctuations is not known.

WATER RESOURCES

Implementing this alternative would result in slightly reduced hydrology, water quality, and groundwater impacts compared to the proposed project in that it would reduce the amount of groundwater extracted from the underlying groundwater basin in Zone 40. Environmental impacts associated with prolonged groundwater extraction (e.g., contaminant migration) would be reduced because less groundwater would be extracted over the planning horizon compared to the proposed project.

CULTURAL RESOURCES

Implementing this alternative would result in cultural resource impacts similar to those of the proposed project. Similar to the proposed project, previously unidentified cultural resources could be disturbed during construction of the groundwater, surface water, and recycled water treatment, extraction, and distribution facilities. Disturbance of these resources would be a potentially significant impact. Mitigation recommended for the proposed project would reduce this impact to a less-than-significant level.

GEOLOGY AND SOILS

Implementing this alternative would result in geology and soils impacts similar to those of the proposed project. This alternative would construct similar facilities for the extraction, treatment, and distribution of water in the 2030 Study Area. This alternative would reduce the amount of groundwater extracted from the underlying groundwater basin; however, it is not likely that the reduced extraction volume would have a substantial effect on the underlying geology compared to the proposed project.

PUBLIC HEALTH AND SAFETY

Implementing this alternative would increase the amount of recycled water used for nonpotable consumptive uses. Although a greater volume of recycled water would be used,

this water would meet Title 22 health standards. Therefore, less-than-significant public health impacts would occur under this alternative.

PUBLIC SERVICES AND UTILITIES

Implementing this alternative would result in similar but slightly increased utility and service system impacts compared to the proposed project. A greater number of facilities would be constructed under this alternative, which would result in greater demand for electricity and natural gas. This demand is not expected to exceed the existing capacity of local providers. Therefore, this alternative would result in less-than-significant utility and service system impacts.

CONCLUSION

Use of recycled water to meet some of Zone 40's nonpotable water demand could reduce groundwater pumping, when compared to the future baseline, in the 2030 Study Area. It is likely that impacts relative to groundwater pumping in the planning horizon and water quality would be slightly reduced. Other impacts, including those related to fishery resources, noise, cultural resources, public health and safety, utility and service systems, and soils and geology, would be essentially the same as under the proposed project. However, because this alternative could facilitate additional growth beyond the planning horizon of the 2002 Zone 40 WSMP, land use, aesthetics, air quality, traffic, and biological impacts could be greater under this alternative than under the proposed project. Because of its uncertainty, this alternative would not be environmentally superior to the proposed project.

Implementation of this alternative would slightly reduce demands on groundwater in the project area. Constraints to water recycling on the scale contemplated in this alternative are many, however, and lend uncertainty to its ultimate implementation. Such constraints include regulatory permits and approvals, institutional agreements between producers of recycled water and other agencies, identification of markets for the resource, and construction of treatment, storage, and conveyance facilities. Because of the limited uses of recycled water, this alternative could not entirely substitute for any element of the proposed project. Provision for additional surface water supplies to meet growing demands for potable water would still be required.

7.4 MAXIMIZED USE OF REMEDIATED WATER ALTERNATIVE

7.4.1 DESCRIPTION

The Maximized Use of Remediated Water Alternative assumes that the SCWA has acquired the rights to use remediated water from Aerojet/McDonnell Douglas and Boeing for use in the 2030 Study Area. Some of the remediated water could be directly used as a replacement for groundwater pumping contemplated in the 2002 Zone 40 WSMP. The pattern of remediated water use could vary but would involve approximately 30,000 afy. Although future conditions may change, resulting in a redistribution of the remediated water supply, SCWA's staff expects

that the remediated water would be used in the eastern portion of Zone 40 with the following allocation: 4,000 afy reinjection (already required by the RWQCB), 7,000 afy replacement water for lost supplies attributable to groundwater contamination in the Sunrise corridor, 5,000 afy replacement water for lost supplies attributable to groundwater contamination in the Cal-American and American States Company's service areas, and 14,000 afy for other uses in Zone 40.

Although implementing this alternative would reduce the volume of groundwater extracted from the underlying groundwater basin to serve growth within the 2030 Study Area, additional remediated water would serve to support more urban growth beyond 2030 using known water resources at the time the 2002 Zone 40 WSMP was prepared. The consequences of this alternative, therefore, could be a facilitation of urban growth within the area designated for such growth by the land use authorities, but beyond the extent envisioned possible with existing known water supplies.

7.4.2 ENVIRONMENTAL ANALYSIS

LAND USE

Implementing this alternative would result in land use impacts similar to those of the proposed project because it would involve constructing a similar number of treatment, extraction, and distribution facilities. Construction of all facilities under this alternative could result in increased development of Prime Farmland, Farmland of Statewide Importance, or Farmland of Local Importance. This would further contribute to the incremental loss of designated farmland in the local area. No feasible mitigation is available to reduce this impact to a less-than-significant level. Similar to the proposed project, this would be a significant and unavoidable impact. Cumulative indirect effects of growth in the 2030 Study Area would be similar to those of the proposed project. However, this alternative could result in increased indirect growth effects in the areas outside of the 2030 Study Area but in Zone 40 and the USB because of availability of groundwater.

AESTHETICS

Implementing this alternative would result in visual impacts similar to those of the proposed project because it would involve constructing a similar number of surface water and groundwater extraction, treatment, and distribution facilities. Because increased use of remediated water would not significantly reduce reliance on surface water, visual impacts of this alternative along the Sacramento River would be similar to those of the proposed project. This alternative would require the construction of similar facilities for the treatment and distribution of remediated water, which could substantially change the visual character of the area in which they are located. This would be a significant and unavoidable impact of the project and this alternative.

AIR QUALITY

Implementing this alternative would result in construction-related and operational air quality impacts similar to those of the proposed project. Similar to the proposed project, air quality impacts would occur with construction and operation of surface water, groundwater, and recycled water extraction, treatment, and distribution facilities. Mitigation recommended for the proposed project would reduce these impacts to a less-than-significant level.

NOISE

Implementing this alternative would result in construction-related and operational noise impacts similar to those of the proposed project. Similar to the proposed project, noise impacts would occur with construction and operation of surface water, groundwater, and recycled water extraction, treatment, and distribution facilities. Mitigation recommended for the proposed project would reduce these impacts to a less-than-significant level.

TRAFFIC

Implementing this alternative would result in traffic impacts similar to those of the proposed project. Temporary construction-related traffic impacts would occur with project construction. Mitigation recommended for the project would reduce these construction-related traffic impacts to a less-than-significant level. Maintenance of the surface water, groundwater, and remediated water extraction, treatment, and distribution facilities would generate a minor amount of vehicle trips on local roadways. These trips are negligible in comparison to the average daily trips accommodated by these roadways. No decrease in level of service (LOS) would occur. Therefore, construction-related and long-term operational impacts would be less than significant under this alternative.

BIOLOGICAL RESOURCES

Implementing this alternative would result in slightly reduced biological resource impacts compared to the proposed project because it would reduce the amount of groundwater extracted from the underlying groundwater basin. Fishery resource impacts in the Sacramento River would be similar to those of the proposed project because the volume of surface water diverted from the Sacramento River would be similar to that diverted under the proposed project. This alternative would reduce SCWA's reliance on the underlying groundwater basin because approximately 30,000 afy of remediated water (primarily from the groundwater basin) would be used in lieu of additional groundwater pumping to meet urban demand. This would likely result in reduced fluctuations in groundwater elevations in the underlying basin and along the Cosumnes River. Although this alternative may increase riverflows in the Cosumnes River compared to the proposed project, the magnitude of these fluctuations is not known.

WATER RESOURCES

Implementing this alternative would result in reduced hydrology, water quality, and groundwater impacts compared to the proposed project. This alternative would reduce the amount of groundwater extracted from the underlying groundwater basin in Zone 40 because up to 14,000 afy of remediated groundwater extracted in the northern area of the 2030 Study Area would be used in lieu of that amount of groundwater pumping. Reduced groundwater pumping would likely reduce contaminant plume migration rates. As described in Section 4.7, Water Resources, if full reuse of remediated groundwater is implemented, the average groundwater levels in northern Zone 40 would increase by approximately 4 feet, whereas those in southern Zone 40 would decrease by 1 foot. Elevated groundwater levels in northern Zone 40 would be a beneficial impact of this alternative. Although average groundwater levels would decrease in southern Zone 40, the magnitude of this decrease is less than what would be expected under 2030 Baseline Conditions. Therefore, this alternative would reduce groundwater impacts in the planning horizon compared to the proposed project. If 5,000 af of remediated groundwater is used to enhance Cosumnes River flows, average annual flows in the Cosumnes River (likely discharge point near Folsom South Canal) would increase by an average of 8 cubic feet per second (cfs) compared to 2000 Baseline Conditions at State Route 99, approximately 12 miles south of the discharge point. Greater flows would likely occur closer to the discharge point.

CULTURAL RESOURCES

Implementing this alternative would result in cultural resource impacts similar to those of the proposed project. Similar to the proposed project, previously unidentified cultural resources could be disturbed during construction of the groundwater, surface water, and recycled water treatment, extraction, and distribution facilities under this alternative. Disturbance of these resources would be a potentially significant impact. Mitigation recommended for the proposed project would reduce this impact to a less-than-significant level.

GEOLOGY AND SOILS

Implementing this alternative would result in geology and soils impacts similar to those of the proposed project. This alternative would involve constructing similar facilities for the extraction, treatment, and distribution of water in the 2030 Study Area. Implementing this alternative would slightly reduce the amount of groundwater extracted from the underlying groundwater basin compared to the proposed project, but this volume would not be substantial enough to result in reduced geology and soil impacts (i.e., land subsidence, lateral spreading).

PUBLIC HEALTH AND SAFETY

Implementing this alternative would result in public health and safety impacts similar to those of the proposed project because existing volumes of recycled water would continue to be used

in this alternative. Further, similar quantities of hazardous materials (e.g., chlorine) would be used to treat groundwater prior to deliver to Zone 40 customers.

PUBLIC SERVICES AND UTILITIES

Implementing this alternative would result in utility and service system impacts similar to those of the proposed project because a similar number of facilities would be constructed. These facilities would result in similar demands for utility services, such as electricity and natural gas. This demand is not expected to exceed the existing capacity of local providers. Therefore, this alternative would result in less-than-significant utility and service system impacts.

CONCLUSION

Use of remediated water to meet some of Zone 40's potable and nonpotable water demand would reduce overall groundwater pumping in the planning horizon in the 2030 Study Area. It is likely that impacts relative to groundwater and water quality would be reduced because less groundwater pumping would occur. Other impacts, including those related to land use, aesthetics, air quality, traffic, noise, cultural resources, public health and safety, utility and service systems, and soils and geology, would be essentially the same as under the proposed project.

Implementation of this alternative would reduce demands for additional groundwater pumping in the project study area compared to the future baseline.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Pursuant to the State CEQA Guidelines, the EIR discusses the ways in which each alternative could be considered "environmentally superior" to the proposed project. As described in more detail in the following discussion, each of the alternative solutions would involve environmental trade-offs. Thus, the EIR identifies aspects of the environmental advantages and disadvantages of each alternative.

No-Project Alternative, an alternative required by CEQA, would result in environmental impacts similar to those of the proposed project. This alternative would be environmentally similar compared to the proposed project.

Increased Water Recycling Alternative would involve the use of increased amounts of recycled water to offset groundwater extraction for nonpotable consumptive uses, such as irrigation, industrial uses, and wetlands management. This alternative would have beneficial effects primarily on groundwater supplies and, to a lesser degree, on surface water supplies. Land use, aesthetic, traffic, air quality, and biological impacts would be essentially the same as those of the proposed project. This alternative would meet all of the project objectives. However, regulatory constraints to large-scale use of recycled water lend uncertainty to its ultimate implementation and therefore would not be environmentally superior to the proposed project.

Maximized Use of Remediated Water Alternative would involve the use of increased volumes of remediated water to offset groundwater extraction for consumptive uses. This alternative would have reduced impacts on groundwater supplies. This alternative would meet all of the project objectives. Because this alternative would reduce the project's water resource impacts, it would be environmentally superior to the proposed project.

7.6 ALTERNATIVES PREVIOUSLY CONSIDERED BUT REJECTED

State CEQA Guidelines §15126(c) provides that an EIR “should also identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” Accordingly, this section provides a discussion of the Increased Diversion of Surface Water from the Sacramento River Alternative and explains the reasons why this alternative was rejected from further consideration.

7.6.1 INCREASED DIVERSION OF SURFACE WATER FROM THE SACRAMENTO RIVER ALTERNATIVE

The Increased Diversion of Surface Water from the Sacramento River Alternative is based on the premise that additional surface water supplies from the Sacramento River above current entitlements would be available for use in Zone 40 and could be secured. The SCWA was a signatory to the Water Forum Agreement and to its purveyor specific agreement, which commits SCWA to diverting no more than 78,000 afy from the Sacramento River unless additional analysis is prepared and water supply negotiations conducted. Because SCWA has committed to this diversion amount, and negotiations would be required to modify SCWA's diversion entitlements with numerous business, environmental, and public agency groups, which could take years to achieve, this alternative was not considered further.