

Natomas Central Mutual Water Company Conjunctive Use Project

1. Project Description

<i>Project Type:</i>	Conjunctive water management
<i>Location:</i>	Sacramento and Sutter counties
<i>Proponent(s):</i>	Natomas Central Mutual Water Company (Natomas or Company)
<i>Project Beneficiaries:</i>	Natomas, northeast Sacramento County, neighboring communities, local districts, state and federal agencies, Bay-Delta
<u>Total Project Components:</u>	Short-term components, full-scale operation that would consider modifications to Natomas' facilities to enable more efficient use of its groundwater and surface water supplies
<i>Potential Supply:</i>	30,000 acre-feet per year (ac-ft/yr)
<i>Cost:</i>	Has not yet been considered; likely to exceed \$1 million and could possibly cost up to \$5 million
<i>Current Funding:</i>	None
<u>Short-term Components:</u>	Pumping existing wells, monitoring and analyzing results after one season
<i>Potential Supply (by 2003):</i>	15,000 ac-ft
<i>Cost:</i>	\$1.2 to \$1.5 million
<i>Current Funding:</i>	None
<i>Implementation Challenges:</i>	Project funding
<i>Key Agencies:</i>	U.S. Bureau of Reclamation (USBR), California Department of Water Resources (DWR), Sacramento North Area Groundwater Management Authority (SNAGMA), American River Basin Cooperating Agencies (ARBCA), Sacramento County, Sutter County, Reclamation District (RD) 1000, RD 1001, City of Rio Linda, City of Sacramento, Pleasant Grove Verona Irrigation District, and South Sutter Water District

Summary

The Natomas conjunctive water management project would allow the Company the opportunity to develop and use groundwater on overlying lands or elsewhere while reducing Natomas' surface water diversions from the Sacramento River. The project potentially has three phases, depending on the outcome of the first phase. As a consequence, Natomas proposes to initiate a pumping and test program to demonstrate conjunctive use (pumping) operations and to observe and analyze stream-aquifer interconnection and third-party impacts. The ultimate intent is two-fold: (1) to devise appropriate mitigation measures for any substantial impact so that third parties are made whole, and (2) to pump extracts groundwater, yielding an equivalent amount of water in the river system by reducing Natomas' complete dependence on surface water diversions.

Phase 1 of the project would be a pilot study, which would make use of existing facilities to pump 15,000 ac-ft of groundwater in 2002 and allow an equivalent amount of surface water to remain in the river. This phase of the project would focus on a key impact issue—the potential of inducing surface water leakage via groundwater pumping in close proximity to the Sacramento River.

Phase 2 would be a continuation of pumping through existing facilities during 2003. This would be done in a manner that would offset or mitigate for any stream-aquifer interconnection, to the extent that such interconnection exists as determined during Phase 1 work, and make an attempt to determine the perennial yield of the basin.

Phase 3 would be a full-scale project that would consider modifications to Natomas' facilities to facilitate more efficient use of its groundwater and surface water supplies. This phase could potentially result in the pumping of as much as 30,000 ac-ft/yr of groundwater.

Short-term Component

Natomas recognizes the unique issue of groundwater pumping and resultant stream-aquifer interaction as a critical potential impact and possibly a constraint to implementation of conjunctive use operations near the river. As a result, the first phase of the project would be a pilot study and test for pumping approximately 15,000 ac-ft of groundwater from existing wells (Figure 7A-1) in 2002 for in- or out-of-basin use. During the study and test, the impacts of pumping on streamflow and on nearby third-party hydrologic conditions would be observed and analyzed.

The primary objective of this effort is to evaluate stream-aquifer interaction and characterize the underlying aquifer. The second phase of work, which would build on results of the pilot study, would be designed to determine the managed yield of the basin that would not create adverse impacts to other area users.

Long-term Component

The primary purpose of this evaluation is to evaluate the potential for this project to provide water supply benefits in the short-term (by end of 2003). As part of this initial evaluation, potential long-term components of the proposed project (defined as any part of the project proceeding past or initiated after December 2003) have been considered on a conceptual level. Further consideration and technical evaluation of long-term component feasibility and

cost will occur as the next level of review under the Sacramento Valley Water Management Agreement. Long-term-component project descriptions are included in these short-term project evaluations only as a guide to the reader to convey overall project intent.

The long-term component of the project would be a full-scale operation that would consider modifications to Natomas' facilities to enable more efficient use of its groundwater and surface water supplies. The long-term component could potentially develop 30,000 ac-ft of water for in- or out-of-basin use each year. This component of the project would need to be further developed and evaluated in future phases of the project.

Historical Groundwater Use and Levels

Natomas covers approximately 36,000 acres in the American River Basin, which is located approximately 5 miles north of downtown Sacramento. Natomas is bordered by the Sacramento River on the west, Natomas Cross Canal on the north, the East Main Drain on the east, and the American River on the south (Figure 7A-1).

The Natomas area overlies a layered aquifer system of several hundred to more than 1,000 feet of thickness. The aquifer units include flood basin deposits and alluvium, generally near streams; the generally adjoining, shallow Modesto and Riverbank Formations; the wide-spread Laguna Formation; and the Mehrten Formation. The latter two underlie the entire area. Much of the area is predominated by relatively deep, poorly drained soils that preclude application of surface spreading, the most commonly practiced form of artificial groundwater recharge. Despite that constraint, DWR concluded in its lengthy investigation and feasibility report on the American Basin Conjunctive Use Project that in lieu recharge in its study area, which included Natomas and water districts immediately north, would effectively maintain the basin through dry- and critical-year groundwater pumping in the range of 37,000 to 67,000 ac-ft/yr in Natomas. According to that analysis, during the demonstration and test of the proposed conjunctive use pumping, the local groundwater system is expected to be recharged via in lieu groundwater pumping reductions in subsequent or wetter years. Ultimately, there is some possibility that a greater-than-historical level of pumping could be sustained to augment the managed yield of the Company.

Natomas has historically relied almost exclusively on surface water diverted from the Sacramento River to meet the agricultural water requirements within its service area. Except for historical drought periods (when some of the wells planned for use on this project were constructed), there has been no widespread need to develop groundwater for irrigation water supply. There is, however, some nearby (immediately outside Natomas' service area) groundwater use, thus giving rise to the need to address potential adverse impacts (i.e., hydraulic interference) that might result from operation of third-party conjunctive-use programs.

Near Natomas, in a large part of northern Sacramento County immediately to the east of Natomas, substantial historical pumping stress has resulted in a progressive groundwater-level decline on the order of 1 ½ feet per year for about the last 50 years (Figures 7A-2 and 7A-3). Despite those conditions, which have a slight boundary effect in the southeastern part of Natomas, the historical lack of groundwater development in Natomas has resulted in long-term, relatively stable, high groundwater levels in the Natomas area (Figure 7A-4). Recognition of both conditions (high water levels and underdeveloped groundwater in

Natomas; depressed water levels and overdraft east of Natomas) suggests that groundwater could be developed in Natomas and conjunctively used with ongoing historical diversions from the Sacramento River to achieve several objectives:

- Reduce dry-year water demand from the Sacramento River
- Achieve more efficient use of available water supplies
- Increase Delta inflows
- Ultimately, participate in a local regional solution to the northern Sacramento County overdraft problem

In identifying the potential for development of a conjunctive use project, Natomas also recognizes that similar opportunities, at least to increase dry-year yield and increase Delta inflows, are available elsewhere in the Sacramento Valley. As a result, great opportunity exists to increase overall yield throughout the valley via conjunctive use, and thus augment inflows to the Delta.

Questions that need to be addressed with regard to the impacts of implementing conjunctive use operations in close proximity to the Sacramento River and tributary streams include, but are not limited to:

1. Would pumping intercept surface water from the river by directly inducing infiltration in response to nearby groundwater pumping?
2. Would induced recharge occur, and if so, how, where, and when (e.g., purposeful artificial recharge vs. in lieu recharge)?
3. How would the basin be managed within its perennial yield?
4. Would third-party impacts (e.g., groundwater-level impacts) result from operations during pumping cycles?

The issue of in lieu recharge and the lack of need for artificial recharge facilities has been evaluated by DWR in its investigation, American Basin Conjunctive Use Project. Limited available data on the hydrogeologic configuration of the aquifer system and on the hydraulic characteristics of the aquifer materials limits the ability to directly address the stream-aquifer interconnection and third-party impacts.

2. Potential Project Benefits/Beneficiaries

The proposed project would provide valuable information regarding the interaction between surface- and groundwater. This information would facilitate a determination of how best to balance one area rich in both surface- and groundwater supplies (Natomas) with a neighboring area of smaller surface supplies and groundwater overdraft (northeast Sacramento County). Increased conjunctive use within Natomas would provide additional water supplies for Natomas; however, the objective of the overall program reaches beyond the supplies available to Natomas and considers maximizing benefits to neighboring communities and the overall system. Operation of multiple, comparatively small-capacity sources (wells) would also equip Natomas with locally distributed sources throughout its distribution system. This would allow for local introduction of water sources in response to

real-time water demand based on irrigation scheduling, thus contributing toward overall increased efficiency. Because of Natomas' extensive reuse system, groundwater could be distributed throughout its conveyance system. This project would also be an early precursor for an eventual connection between the Sacramento and American River systems, thus providing greater flexibility to agencies and local districts.

The proposed project could potentially assist the state and federal agencies currently looking to expand conjunctive use throughout the state by answering the questions regarding the stream-aquifer interconnection. This issue currently limits the state and federal agencies from expanding or utilizing potential groundwater sources because of concern about inducing stream leakage .

The proposed project would fill a critical Bay-Delta need of improving in-stream flow in the Sacramento River. This Bay-Delta need is embodied in CALFED Quantifiable Objective 57. The water generated from the proposed project could be made available to critical needs downstream of the Delta and to Delta outflow. If the project should prove successful in identifying limited interconnection between the river and groundwater, this water could be made available far into the future by providing an alternate source of water for local needs.

In addition to this project providing valuable information as well as new water to the Delta, this project is also consistent with a regional plan. Several of the larger Sacramento River Settlement Contractors have been working cooperatively with USBR and DWR since 1997 in the development of the Sacramento River Basinwide Water Management Plan (BWMP). Natomas has been an active participant in that process. Among the recommendations identified in the BWMP is the management of water among districts and ultimately other entities at a hydrologic sub-basin level. Management at this level would help optimize the efficient use of surface water and groundwater supplies and achieves the appropriate level of drain and return flow water use between water users located within a given sub-basin. This project would provide the opportunity to help meet the increasing water supply and demands of Natomas, the Sacramento River, and the Bay-Delta Estuary.

3. Project Costs

The cost opinions shown, and any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation from the information available at the time of the estimate. It is normally expected that cost opinions of this type, an order-of-magnitude cost opinion, would be accurate within +50 to -30 percent. Project costs were developed at a conceptual level only, using data such as cost curves and comparisons with bid tabs and vendor quotes for similar projects. The costs were not based on detailed engineering design, site investigations, and other supporting information that would be required during subsequent evaluation efforts.

The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. As a result, the final project costs will vary from the opinions presented here. Because of these factors, project feasibility, benefit/cost ratios, risks, and funding needs must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

The first two phases of the proposed project have been estimated to be \$1.2 to \$1.5 million. The cost of the third phase of the project has not been estimated but would likely exceed \$1 million and could easily be as much as \$5 million. Table 7A-1 presents the estimated planning-level project costs.

TABLE 7A-1
 Planning-level Project Costs
Natomas Central Mutual Water Company Conjunctive Use Project

Item	Amount	Quantity	Units	Total Cost	Assumptions
Supplies	\$625,000	1	Lump Sum	\$625,000	Estimated cost of PG&E power (\$25/ac-ft) and portable generator rental
Conveyance Cost	\$200,000	1	Lump Sum	\$200,000	Includes incentive cost for landowner participation for 2 years
Consultants	\$10,000	1	Lump Sum	\$10,000	Meetings, public outreach, and report review for 2 years
Well Modification	\$30,000	1	Lump Sum	\$30,000	Meter installation, install well sounding access, 30-year life
Engineering	\$110,000	1	Lump Sum	\$110,000	Well site review and evaluation; well modification design and oversight; testing, analysis, and reporting for 3 years
Legal	\$5,000	1	Lump Sum	\$5,000	Well owner and funding agreements for 3 years
Mitigation Fund	\$50,000	1	Lump Sum	\$50,000	Pumping impacts mitigation for 3 years
Salaries and Wages	\$50,000	1	Lump Sum	\$50,000	Administration costs to develop conjunctive use program over 4 years
Salaries and Wages	\$15,000	3	\$/yr	\$45,000	Administer and monitor conjunctive use program
				Project Cost	\$1,125,000
				Cost Paid by Natomas	\$95,000
				Balance to be Funded	\$1,030,000

4. Environmental Issues

The proposed study and project would continue to provide water supply to the flood irrigation of thousands of acres of rice in Natomas with the attendant wildlife habitat benefits. Further, the reduction of surface water diversions from the river and Delta system, particularly in dry years, would enhance fish and wildlife habitat, which is CALFED's Quantifiable Objective 57. The proposed project presents no known negative impacts to the environment.

Land subsidence is not considered to be a likely issue at the scale of the proposed demonstration and test. However, depending on the findings and any plans for ongoing conjunctive use, appropriate monitoring of subsidence, likely via interpretation of ongoing subsidence monitoring at the Sutter extensometer, would be added to ongoing monitoring. Whether that monitoring would be limited to land surveying, incorporation of existing

extensometer monitoring, or ultimate construction of a new extensometer is unknown at present but would be factored into an evaluation of the demonstration and test.

A draft California Environmental Quality Act (CEQA) environmental checklist has been prepared for this proposed project and is included as an attachment to this evaluation. The checklist provides a preliminary assessment of the environmental areas of concern, as well as areas that are not likely to be of concern, associated with this project. The checklist would be finalized as part of the environmental compliance required for project implementation.

5. Implementation Challenges

The project implementation would occur in several incremental stages, each of which could have significant challenges. Many of these challenges would be inherent to any project of this size and complexity. Key environmental issues are related to long-term management of the basin, with the groundwater impacts and fishery issues being of greatest concern. The following lists some of the implementation challenges anticipated to be associated with this project.

Public Perception

Landowners have significant concern regarding possible groundwater overdraft. While the aquifer recharge aspects of this project may go a long way to alleviate these concerns, overdraft likely would remain a concern. Monitoring and modeling of groundwater levels would not only be an essential part of this project technically, but also politically. Furthermore, public concern accompanies any water delivery project (particularly during dry years) with regard to whom any project may or may not benefit.

Coordination among Public and Private Entities

Strong coordination would be required among local, state, and federal entities. The governmental agencies would have strong interests associated directly with the project and indirectly as it may affect other interests in the area. It is highly probable that competing interest may arise. Reliable communication and integrated coordination would be required to create a successful project.

Coordination between Concurrent Projects

Numerous parties are examining similar projects throughout the valley. To optimize the effectiveness of these projects, coordination between the projects would be required from the onset. The strongest motivation for such an effort is three-fold: (1) to avoid duplication of effort and as a result efficiently use available funds, (2) to avoid the nullification of project benefits through competing projects, and, perhaps most importantly, (3) to optimize the benefits of these projects to the watershed.

Lack of Sufficient Groundwater Data

A key data gap in this proposal is knowledge of the aquifer-stream hydraulic interconnection. The pilot project would be designed to address this issue, as well as other key hydrologic issues.

Water Rights Implications

Natomas' participation would be predicated on the operation of such a program and would occur within the guise of the Company's existing water rights. Decreases in surface water diversions would be anticipated in some years, while full contract quantities would be used in other years.

Environmental Regulatory Compliance

Environmental documentation, surveying, monitoring, and permitting would be required for this project. Project scheduling would have to reflect environmental regulatory requirements including any limitation on windows of operation.

Land Acquisition

It is probable that land would have to be acquired for the production wells and conveyance systems. Some landowners may be resistant to the land purchases.

6. Implementation Plan

Natomas is prepared to begin Phase 1 of this project immediately. In fact, Natomas has completed a number of minor tasks associated with Phase 1 including local outreach, retaining the services of a groundwater consultant to perform the study and monitoring, identifying wells to be used, and determining work needed to be done to get the wells operational. These and other tasks that Natomas has completed have put Natomas in a position to begin the first phase of the project immediately and begin the groundwater pumping in the 2002 irrigation season. The second and third phase would build on the results of the Phase 1 pilot study. Figure 7A-5 illustrates the preliminary implementation schedule.

Phase 1

Pilot Study Pumping, Monitoring, and Analysis

To investigate stream-aquifer interconnection and third-party impacts, the Natomas workplan can be divided into three major parts.

1.1 Pumping test and report— The first part of Phase 1 would be a 2002 pumping test of approximately 15,000 ac-ft to determine if existing facilities with proposed monitoring are sufficient for a 2003 demonstration test. At the completion of the 2002 test, a single report would be provided summarizing the results and identifying the type of data that would be collected and provided for the 2003 demonstration and test.

1.2 Public outreach— The second part of Phase 1 work would be public outreach to receive input on the 2002 test results from local, state, and federal agencies through workshops. 2002 results would be reviewed and discussed, and possible modifications (depending on costs) to the workplan for the 2003 monitoring and analysis demonstration pumping program would be made.

1.3 Analysis of results— The dependence on in lieu groundwater recharge precludes the need for dedicated recharge facilities, identified recharge water supply, and conveyance

facilities to deliver water to the recharge facilities. The pumping of groundwater, however, could be readily accomplished to the level described in this project by using existing facilities. As illustrated on Figure 7A-1, Natomas has access to at least 13 wells with pumping capacities from about 800 gallons per minute (gpm) to about 3,500 gpm that can effectively discharge into the Natomas system, thus substituting for surface water diversions. Pertinent details about the existing wells are summarized in Table 7A-2.

TABLE 7A-2
 Existing Well Data
Natomas Central Mutual Water Company Conjunctive Use Project

Well #	Well	Pump Size (hp)	Pump Capacity (gpm)
1	Riego 2	100	2,100
2	Riego 8	200	3,500
3	Riego 9	30	800
4	Bianchi 1	60	2,000
5	Bianchi 2	80	2,000
6	Spangler	80	2,700
7	Morrison 1	40	1,000
8	Morrison 2	40	1,000
9	Morrison 3	40	1,000
10	Willey	40	1,500
11	Ose 1	150	3,000
12	Ose 2	200	3,000
13	Atkinson	80	2,500
Total			26,100 gpm = 58 cfs

hp = horsepower
 cfs = cubic feet per second

The preceding pumping capacity equates to about 3,475 ac-ft per month. Over an 8-month rice pre-irrigation, irrigation, and re-flood period, this would reduce surface water diversions from the Sacramento River by up to approximately 20,000 ac-ft.

Results of the Phase 1 pilot study would be analyzed and then summarized in a report. The report would discuss the viability of the proposed Phase 2 demonstration test monitoring and analysis program. After distribution to local, state, and federal agencies, a workshop would be held to discuss the Phase 1 results and review the Phase 2 workplan.

Phase 2

Demonstration Testing

2.1 Monitoring and assessment using existing facilities— The principal objective of Phase 2 would focus on monitoring and assessing actual conjunctive use operations using existing facilities. It would monitor and analyze basin response, stream-aquifer interconnection, third-party impacts, and develop a final report made available to all local, state, and federal agencies. The 2003 demonstration testing would comprise the following:

- Pumping the same network of existing wells along with monitoring groundwater level responses in the pumped wells and in other wells
- Conducting the equivalent of aquifer tests in two or more wells (proximal and distal to the river)
- Surface- and groundwater quality sampling and analyses
- River stage monitoring

Basin response to pumping and in lieu recharge would be evaluated through analysis of groundwater levels and pumping rates during and after the pumping cycles. Off-site or other third-party impacts would be assessed the same way, via measurement and evaluation of groundwater levels with and without “project” pumping.

The analyses would include both time-related (hydrographs) and spatially related (contour maps) depictions of groundwater conditions. The stream-aquifer interconnection would be technically evaluated by conducting the equivalent of constant-rate pumping tests of selected wells proximal and distal to the river, while discharging the water into the distribution system for irrigation supply (i.e., as part of the conjunctive use demonstration). The groundwater level drawdown versus time relationships would be analyzed to estimate the hydraulic characteristics of the aquifer and also to evaluate the hydraulic impact of induced recharge effects of the river (i.e., to detect whether there is a direct hydraulic connection between the river and the aquifer materials in which the wells are completed). The groundwater level analyses would be complemented by interpretation of surface- and groundwater quality data for similarities, dissimilarities, and trends over the duration of an estimated 8-month pumping cycle.

2.2 Workplan development – The workplan would include interpretation of all the above in the context of the hydrogeologic setting and description of the aquifer system, along with the pumping well completions, to test and crosscheck the stream-aquifer hydraulic relationship and to determine the managed yield of the basin without creating adverse impacts to other users.

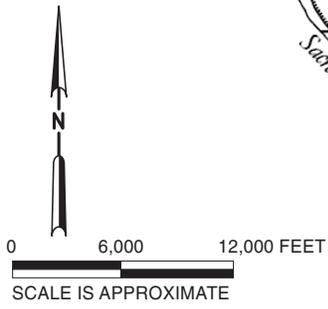
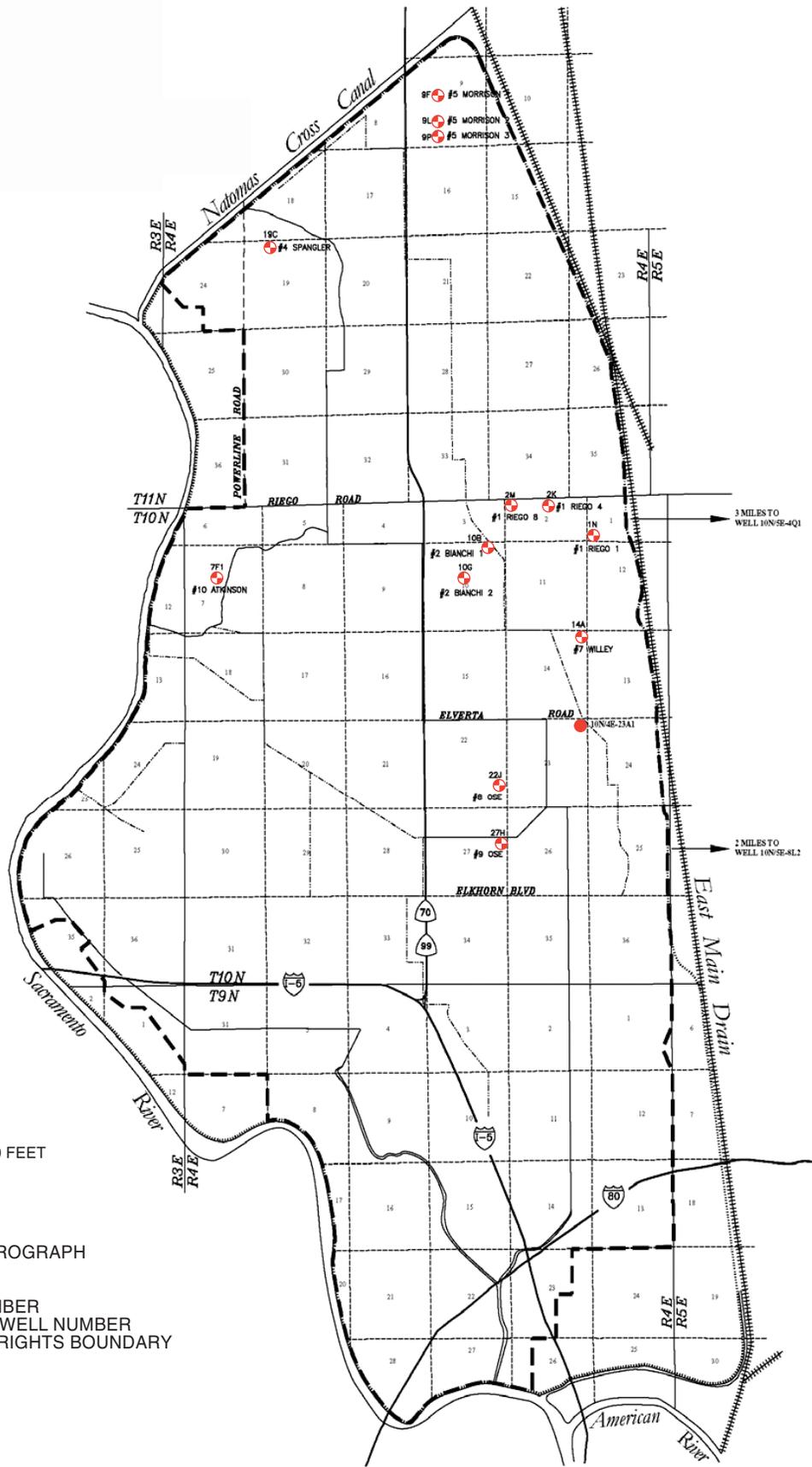
For the planned duration of the 2003 demonstration and test, interim reports would address the starting of the test, the completion of the test, the post-test basin response, and analysis of impacts. These reports would be provided to all local, state and federal agencies that have an interest in the outcome. Natomas anticipates that a successful ongoing conjunctive use program would evolve from the demonstration and test program.

Monitoring and Assessment

As described above, the proposed 2002 test and the 2003 demonstration and test program would provide monitoring and status reports. These reports would include the initiation of the project, status during a first irrigation season of pumping, monitoring and testing, post-pumping monitoring of basin recovery and in lieu recharge, and interpretation and analysis of benefits and impacts of the pumping and testing. As also described above, the 2002 test and 2003 demonstration and test program would involve a mixture of well and aquifer testing to investigate stream-aquifer interconnection, plus less rigorous “routine” surface- and groundwater monitoring. Idle wells near some of the project wells would be used, as

feasible, in conjunction with the pumped wells for monitoring aquifer test and/or basin response. Nearby potentially impacted third-party wells have not yet been identified, but would be located prior to the start of demonstration and test pumping operations. These wells would be monitored on a regular basis, depending on distance from project wells. The frequency of planned monitoring would be defined as part of the workplan.

Tested wells and any nearby observation wells would be monitored (capacity, cumulative volume, groundwater levels) on a varying frequency as the tests progress, from every minute to every hour or longer, consistent with standard aquifer testing protocol, to allow appropriate interpretation in accordance with confined, unconfined, or leaky aquifer theory.



- LEGEND**
- WELL WITH HYDROGRAPH
 - WELL NUMBER
 - ⊕ WELL SITE
 - #5 WELL FIELD NUMBER
 - MORRISON 3 OWNE/OWNERS WELL NUMBER
 - NCMWC WATER RIGHTS BOUNDARY

FIGURE 7A-1
PROJECT LOCATION MAP
 NCMWC CONJUNCTIVE USE PROJECT
 SHORT-TERM PROJECT EVALUATIONS
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

CH2MHILL
 in association with
MONTGOMERY WATSON HARZA
MBK
SWRI

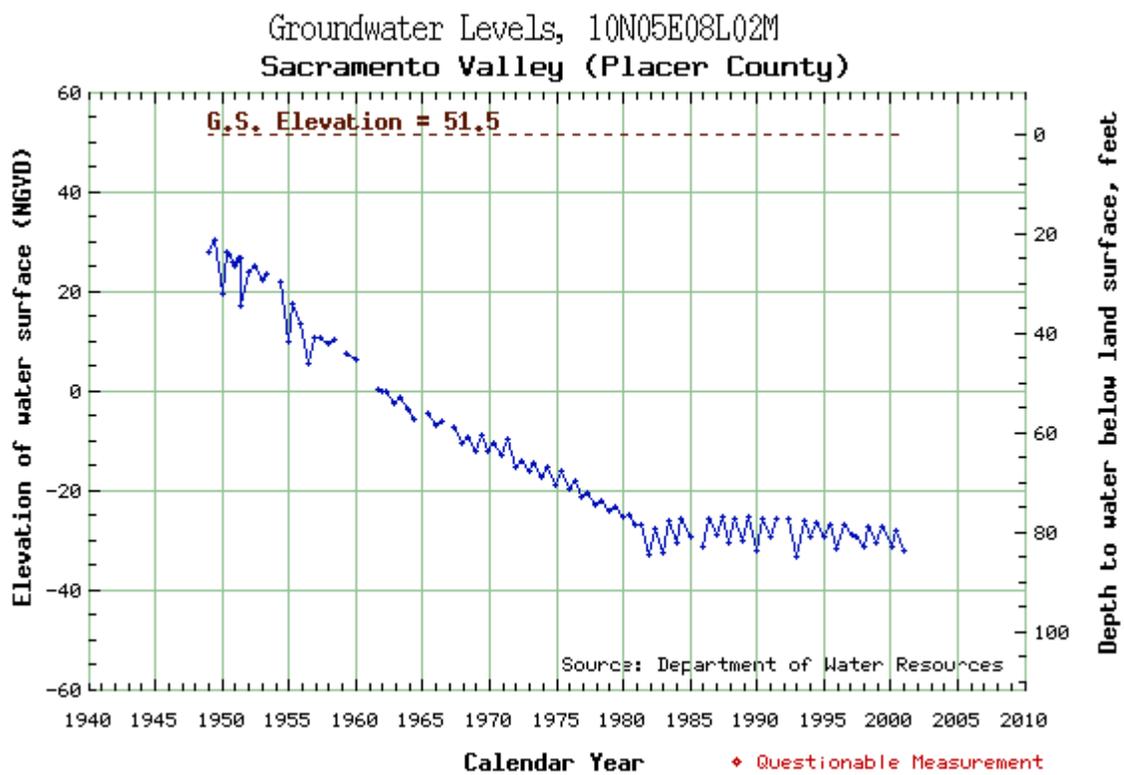


FIGURE 7A-2
HYDROGRAPH FOR WELL 10N/5E-8L2
 NCMWC CONJUNCTIVE USE PROJECT
 SHORT-TERM PROJECT EVALUATIONS
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

Groundwater Levels, 10N05E04Q01M
 Sacramento Valley (Placer County)

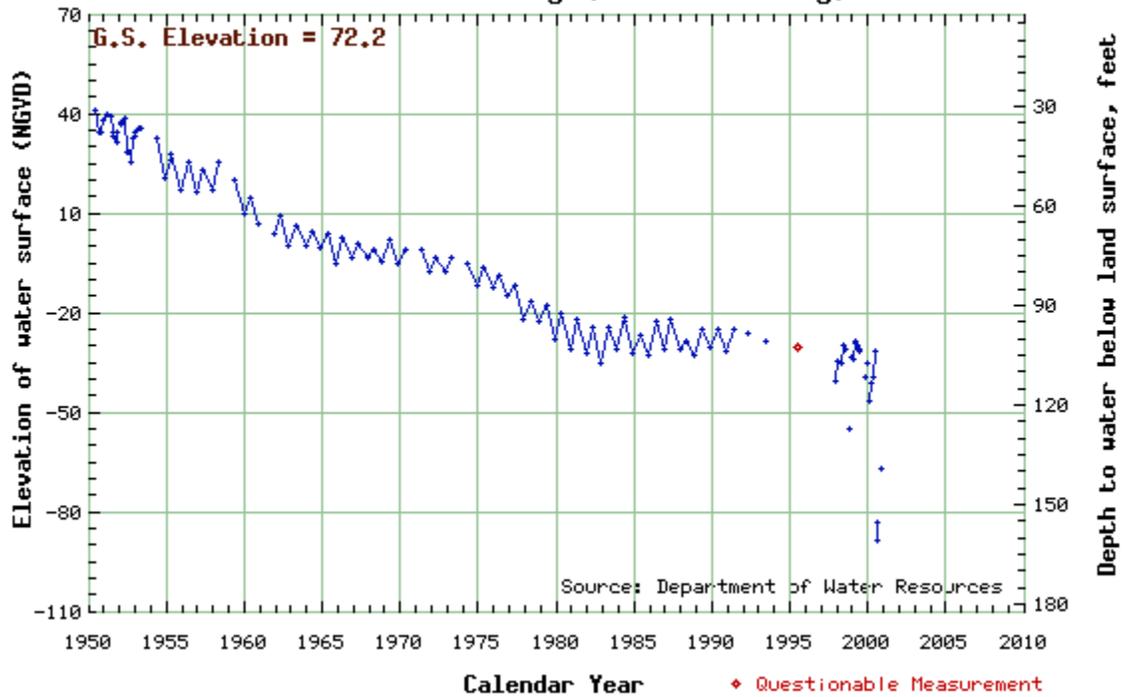


FIGURE 7A-3
HYDROGRAPH FOR WELL 10N/5E-4Q1
 NCMWC CONJUNCTIVE USE PROJECT
 SHORT-TERM PROJECT EVALUATIONS
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

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SWRI

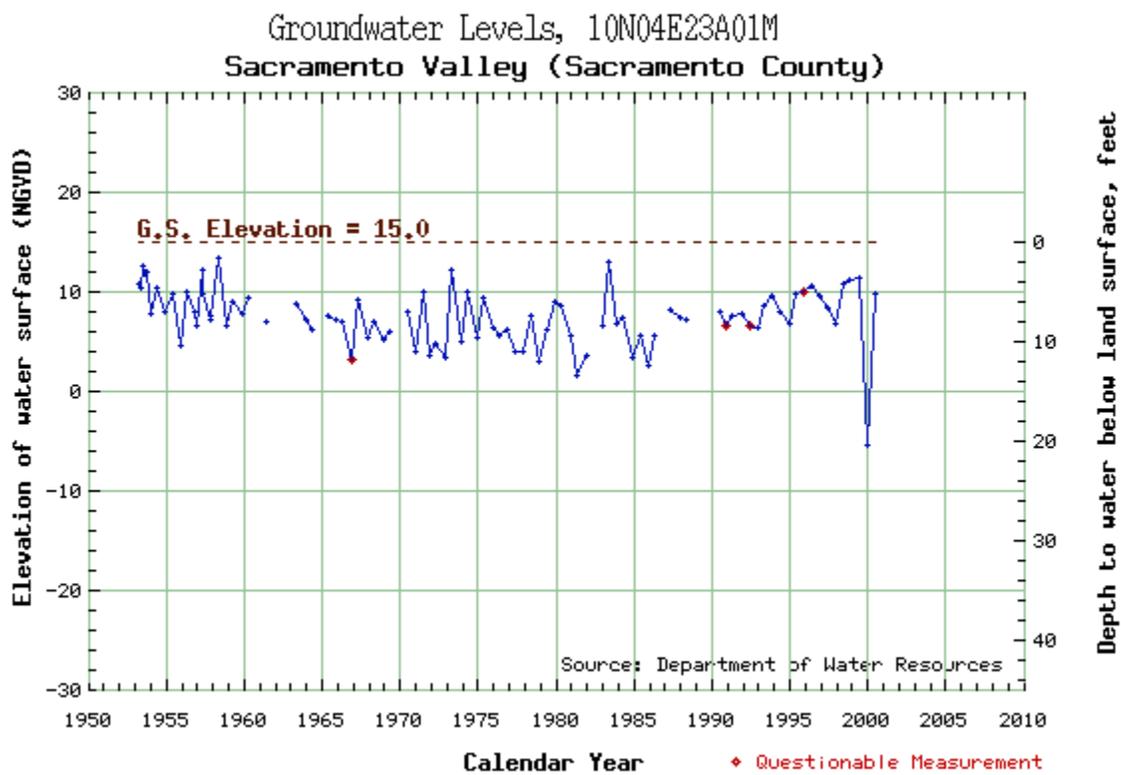


FIGURE 7A-4
HYDROGRAPH FOR WELL 10N/4E-23A1
 NCMWC CONJUNCTIVE USE PROJECT
 SHORT-TERM PROJECT EVALUATIONS
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

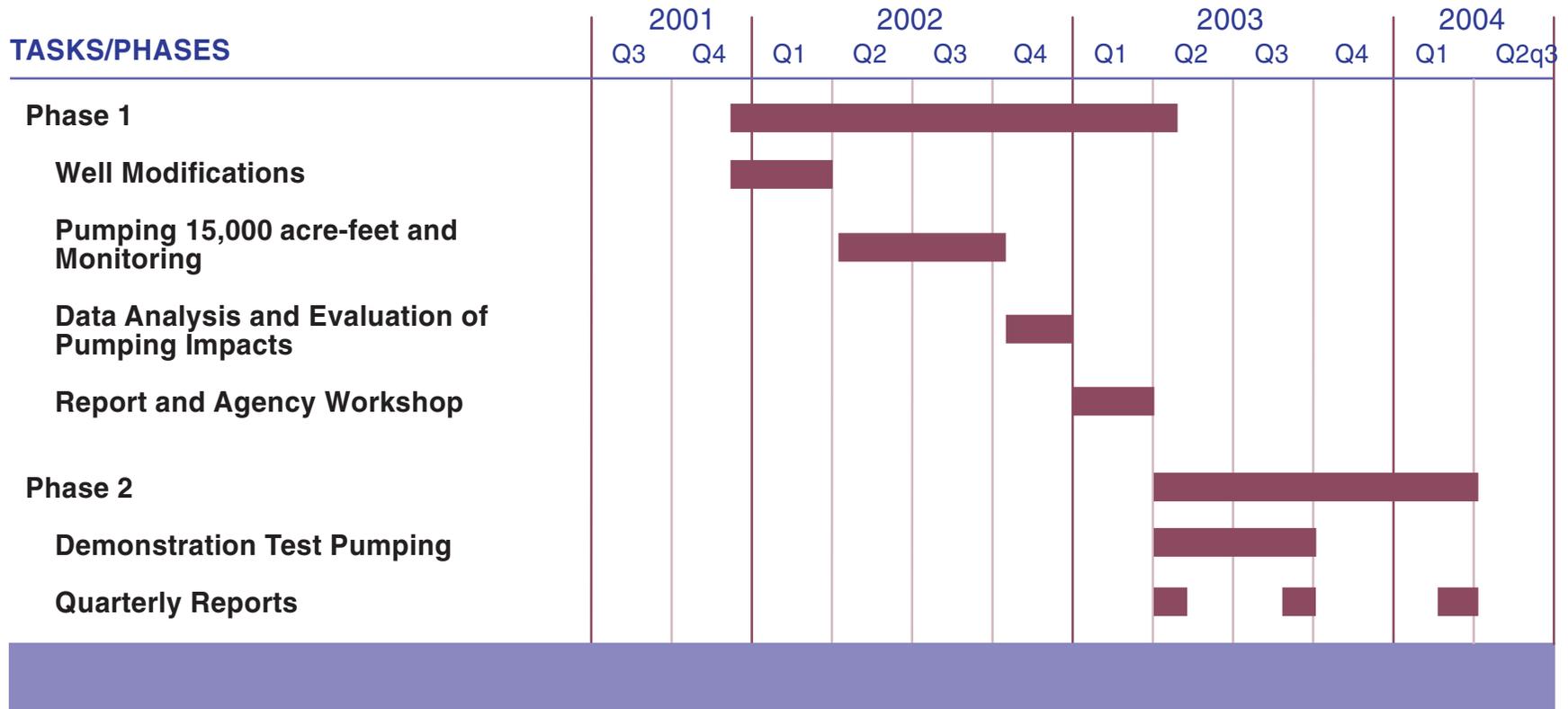


FIGURE 7A-5
PRELIMINARY IMPLEMENTATION SCHEDULE
 NCMWC CONJUNCTIVE USE PROJECT
 SHORT-TERM PROJECT EVALUATIONS
 SACRAMENTO VALLEY WATER MANAGEMENT AGREEMENT

**Project 7A – Draft CEQA
Environmental Checklist**

Project 7A—Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

Determination:

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

For

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
<u>I. AESTHETICS</u> —Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Short-term impacts from increased noise and dust emissions may occur if the project involves construction. Mitigation measures implemented for noise and air quality would reduce any impacts to a less than significant level.</i>				
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>II. AGRICULTURE RESOURCES</u> —Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>III. AIR QUALITY</u> —Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Increased air emissions could result from potential construction activities. Best management practices (BMPs) would be implemented to reduce air emissions during construction activities.</i>				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES—Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? <i>Disturbance to local wildlife or habitat modifications may occur if the project involves construction. Mitigation measures would be implemented to reduce any potential impacts.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act, (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? <i>The removal of some vegetation may be required if the project involves construction. Mitigation measures would be implemented to reduce any potential impacts.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES—Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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<u>VI. GEOLOGY AND SOILS</u> —Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>VII. HAZARDS AND HAZARDOUS MATERIALS</u> —				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>If construction equipment is necessary, it would require the use of potentially hazardous materials. The potential for significant hazardous material spill would be unlikely because of the limited amount of such materials that would be used onsite. If a spill or release of such materials were to occur, it could potentially be significant unless BMPs were implemented.</i>				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>VIII. HYDROLOGY AND WATER QUALITY—</u>				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>There are serious concerns about the long-term draw-down of the groundwater table and land subsidence, particularly in dry years. Model development would help in determining the effects of increased groundwater pumping. The impact that groundwater withdrawal would have on existing groundwater supplies is as yet undetermined; however, it is potentially significant because of the complexity of the issue.</i>				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. LAND USE AND PLANNING —Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. MINERAL RESOURCES —Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. NOISE —Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. POPULATION AND HOUSING —Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>XIII. PUBLIC SERVICES—Would the project:</u>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>XIV. RECREATION—Would the project:</u>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>XV. TRANSPORTATION/TRAFFIC—Would the project:</u>				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>XVI. UTILITIES AND SERVICE SYSTEMS—</u>				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>XVII. MANDATORY FINDINGS OF SIGNIFICANCE</u>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>