1997, April 14 – Salinas Valley Water Coalition request to Monterey County Board of Supervisors to deny Tanimura & Antle's claim for alternative relief filed on March 24, 1997.
April 14, 1997

Simon Salinas, Chair
Monterey County Board of Supervisors
240 Church Street, Room 211
Salinas, CA 93901

Re: Tanimura & Antle Claim for Alternative Relief

Dear Mr. Salinas:

The Salinas Valley Water Coalition urges this Board to deny, without prejudice to later renewal, Tanimura & Antle’s (T&A’s) claim for alternative relief filed with this Board on March 24, 1997. Any other response from this Board would fatally undermine the fact-based consensus building process to which all Salinas Valley interests, including Tanimura & Antle, have been devoting their energies for the past year.

That process is nearing fruition: the parties, including T&A, have been working collaboratively to develop an accurate mathematical model (the "IGSM") of the Salinas Valley groundwater basin. As of March 25, the parties, including T&A, acknowledged that the IGSM was ready for use in comparing Basin Management Plan alternatives, and would, with further review, be capable of describing how the operation of Nacimiento and San Antonio reservoirs have affected the water supplies of the various areas of the Salinas Valley. In other words, as T&A and its hydrologist acknowledge, the IGSM hindcasting will either substantiate or refute T&A’s assertion that it has not benefitted from the reservoirs.

Because of its timing, if for no other reason, T&A’s claims must be viewed with enormous skepticism. Why otherwise, with the answer finally in sight, would T&A not await the authoritative results of the IGSM hindcasting run?

An earlier version of the IGSM found the reservoirs’ operation had reduced seawater intrusion in the Pressure area by one-third over what would have occurred in their absence. That estimate appeared in the "White Paper," unanimously supported by a panel of
twelve expert hydrologists familiar with the Salinas Valley groundwater basin. T&A's hydrologist, Joseph C. Scalmanini, who submitted a declaration with T&A's claim, was one of those hydrologists.

Mr. Scalmanini's declaration itself recognizes that "the MCWRA's IGSM is the obvious numerical model to be ultimately extended back in time to simulate no-project conditions." (Scalmanini declaration p.1, last ¶) Mr. Scalmanini also explicitly warns that his "conceptual model" should not be "over-concluded."

The conceptual model is incorrect, which may explain why its conclusions are so different from the White Paper results. Mr. Scalmanini's conclusion that the reservoirs benefitted the southern Salinas Valley is based on the absence of change in groundwater levels despite an increase in irrigated acreage. He reasons that therefore, "the Upper Valley - Forebay areas must have been augmented by additional recharge" and then concludes that the source of recharge has been the release of water stored in the reservoirs.

However, the question whether the Upper Valley/Forebay areas benefitted from the reservoirs can be determined only if one knows what conditions would have been in the absence of the reservoirs. Those "without-reservoir" conditions can be determined only by using a tool such as the IGSM.

Mr. Scalmanini's logic presumes, rather than determines, that the recharge must have come from the reservoirs. While that is one possible explanation, it is not the only one. It is entirely possible that, while the increased pumping for expanded agriculture created lower seasonal groundwater levels, the increased storage space thus created in the aquifer was filled by natural recharge, not by reservoir storage releases. Again, only the IGSM hindcasting simulation will test whether T&A's and Mr. Scalmanini's explanation is correct.

Furthermore, Mr. Scalmanini's conceptual model bases its conclusions concerning lack of benefit in the northern Salinas Valley on the declining groundwater levels despite presumed constant acreage of irrigated land in the Pressure Area, contrasted with the presumed explosive expansion of irrigated land in the Eastside area. However the acreage figures used in the conceptual model are incorrect; they do not take into account the fact that

10,000 acres of land previously classified as "Pressure" were redefined as "Eastside" acreage in 1964.

Adding back in to the Pressure area the 10,000 acres erroneously assigned by Mr. Scalmanini to the Eastside area shows that the "constant" irrigated acreage assumed for the Pressure area really represents a 10,000 acre expansion in irrigated land there -- approximately a 20% increase. This does not even include the 5,000 acre expansion of urban land in the Pressure area. Similarly, the 10,000 acres incorrectly excluded from the Eastside’s original acreage greatly exaggerates the extent to which the conceptual model presumes that irrigated acreage has expanded there since pre-reservoir times.

The IGSM takes this acreage realignment into account in its acreage analysis. According to the Agency’s recalculation of Pressure Area and Eastside acreage, using consistent area boundaries throughout, irrigated acreage in the Salinas Valley has historically developed as follows:

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>44,761</td>
<td>46,459</td>
<td>51,926</td>
<td>51,873</td>
<td>53,101</td>
</tr>
<tr>
<td>Eastside</td>
<td>29,968</td>
<td>33,478</td>
<td>36,767</td>
<td>35,573</td>
<td>36,817</td>
</tr>
<tr>
<td>Forebay</td>
<td>41,354</td>
<td>50,094</td>
<td>55,862</td>
<td>55,984</td>
<td>56,834</td>
</tr>
<tr>
<td>Upper</td>
<td>25,773</td>
<td>34,655</td>
<td>43,443</td>
<td>44,051</td>
<td>45,151</td>
</tr>
</tbody>
</table>

While all agree that seawater intrusion and groundwater declines have continued to occur in the Eastside and Pressure areas since construction of the two reservoirs, what is not known, and will not be known until the IGSM hindcasting simulation has been completed, is the extent of intrusion and decline which would have occurred had the

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2/ 1953 acreage is taken from a table appearing at page 100716 of the Agency’s records. The January 1964 report, "Surveys of Land Use in the Salinas Valley for Years 1944, 1953 and 1963" prepared for the Monterey County Flood Control & Water Conservation District, shows the amount of land in each area before the reclassification.
reservoirs not been built. Not until then will T&A, the Agency or this Board know whether T&A’s claim has any validity.

T&A’s claim to this Board seeks to sidestep this fact-finding process and force action on incomplete and inaccurate data. Premature action by this Board on T&A’s claim will sabotage the IGSM hindcasting effort and seriously compromise the on-going fact-based process which is the only path to ultimate resolution of the Salinas Valley water controversies. The Salinas Valley Water Coalition urges the Board to deny T&A’s claim without prejudice at this time.

Sincerely,

KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
A Professional Corporation

JANET K. GOLDSMITH
for Salinas Valley Water Coalition

cc: Douglas Holland, County Counsel
    Ernest Morishita, County Administrator
    Steve Collins, Chair MCWRA
    Michael Armstrong, Manager, MCWRA
    Anne Schneider (by fax)
    Joseph Scalmanini (by fax)
    Ralph Riva (by fax)
    Nancy Isakson (by fax)
    Tim Durbin (by fax)
March 24, 1997

Simon Salinas, Chair
Monterey County Board of Supervisors
240 Church Street, Rm 211
Salinas, CA 93901

Re:  Tanimura & Antle, Inc. Claim for Alternative Relief regarding A.P.N. 177-021-13
located within the Pressure Area of the Salinas Groundwater Basin

Dear Mr. Salinas:

This letter and attachments constitute a claim by Tanimura & Antle, Inc. ("TAI") before
the Board of Supervisors pertaining to Zones 2 and 2A and charges imposed on certain
property within those zones by the Monterey County Water Resources Agency ("MCWRA" or
"Agency"), in particular A.P.N. 177-021-13. TAI challenges the determinations made as to
the type and degree of benefits conferred on A.P.N. 177-021-13 within Zones 2 and 2A.

TAI is filing this claim because the Agency has not made water available to TAI
property as intended by the operation of Nacimiento and San Antonio Reservoirs, and TAI
property has not received the intended benefits of Nacimiento or San Antonio Reservoir
operation. Although TAI believes it has no recourse but to file this claim at this time, it
believes the lack of benefit conferred to date would not be objectionable to it if TAI had
assurance that the Zones 2 and 2A project will be completed, such that equal project benefits
will be made available to the Pressure Area, with equal distribution of the costs of both halves
of the project, i.e., for both the reservoirs and a conveyance system to serve the entire Salinas
Valley groundwater basin. TAI has expected that the past and current lack of benefit would be
remedied by future benefits realized through completion of the project, with all the members of
the zones paying equally. TAI files this claim reluctantly, but recent developments indicate
that an equitable resolution of the BMP process is unlikely without appropriate action by the
Board of Supervisors. TAI requests alternative remedies, as set forth below.

The Salinas Valley groundwater basin is one basin, not several distinct basins.
Consistent with that, all parties within the basin (Zones 2 and 2A) have equally shared the

1 A.P.N. 177-021-13 has previously been a portion of A.P.N. 177-021-001, and
subsequently of A.P.N. 177-021-008.
costs of the project. However, to date the Southern Valley has received essentially all project benefits. The project that was conceived in 1946 to relieve the water problems of the Salinas Valley included not only construction of reservoirs, but a distribution system to convey water to benefit the Pressure Area and to relieve the problem of seawater intrusion. (Department of Water Resources Bulletin 52 "Water Supply of Monterey County and Plans for its Use"; Report Prepared for the Monterey County Flood Control and Water Conservation District by its Engineers, S.T. Harding and Loran S. Bunte, Jr., April 2, 1957; Supporting Material for Report on Water Supply of Monterey County and Plans for its Use by S.T. Harding and Loran S. Bunte, Jr., 1957; Supporting Material Prepared by S.T. Harding for the Joint Report on Water Supply of the Salinas Valley and Storage Projects for its Additional Use by S.T. Harding and A. Kempkey, October 1953.)

This solution was widely endorsed as recently as 1995, when a panel of geologists, hydrogeologists, and engineers was convened by the Agency to review and define the water resources problems in the Salinas Valley basin. ("Hydrogeology and Water Supply of Salinas Valley," a White Paper prepared by Salinas Valley Ground Water Basin Conference, for Monterey County Water Resources Agency, June 1995.) That panel concluded by urging the Agency "to focus its attention on the completion of the original plan by construction and operation of water transfer facilities." (Id., at p. 18.)

Because the project has not been completed with all members of Zones 2 and 2A participating equally in the costs and benefits, TAI must seek redress. TAI has been harmed in that improper determinations were made regarding the type and degree of benefits conferred on TAI property by the one-half of the Zones 2 and 2A project built and operated to date. TAI's preferred relief would be that the Board of Supervisors direct apportionment of all costs and benefits of implementing the Basin Management Plan (BMP) equally throughout Zones 2 and 2A. In this context, TAI considers "BMP costs" to include the costs associated with the construction, operation and maintenance of Nacimiento and San Antonio Reservoirs, as well as the funds necessary to complete the project, which includes construction, operation and maintenance of a water distribution system. Until such BMP costs have been equally apportioned, and all elements of the BMP have been completed and are being implemented, so that equal benefits are realized, TAI requests that the Board of Supervisors provide immediate interim relief to the Pressure Area, particularly A.P.N. 177-021-13, by ordering the immediate reoperation of the Nacimiento and San Antonio Reservoirs. The Reservoirs should be operated so that surface flow from released stored water reaches Davis Road, north of Spreckels (instead of the Agency's current operating criteria that the Salinas River "wet line" reach only nine miles north of Chualar), so that direct and in-lieu benefits can be provided to the Pressure Area. This should be done notwithstanding the possibility that the Board of Supervisors would be required to take action to reduce pumping in the Upper Valley and Forebay Areas to the extent necessary to prevent interference with the redistribution of Reservoir releases for the benefit of the Pressure Area.
Alternatively, if the costs and benefits of implementing the BMP are not, or cannot be apportioned equally as requested in TAI's preferred relief, TAI requests a refund of all standby or availability charges paid for A.P.N. 177-021-13 since 1986, and a variance from any future assessments associated with Zones 2 and 2A. TAI requests a variance until such time as the entire project, including the conveyance system, is completed and A.P.N. 177-021-13 receives the intended benefits of a completed project. This requested relief does not include a request for detachment from Zones 2 or 2A, or any successor zone or zones. Until such BMP costs have been equally apportioned, and all elements of the BMP have been completed and are being implemented, so that equal benefits are realized, TAI requests that the Board of Supervisors provide immediate interim relief to the Pressure Area, particularly A.P.N. 177-021-13, by ordering the immediate reoperation of the Nacimiento and San Antonio Reservoirs. The Reservoirs should be operated so that surface flow from released stored water reaches Davis Road, north of Spreckels (instead of the Agency's current operating criteria that the Salinas River "wet line" reach only nine miles north of Chualar), so that direct and in-lieu benefits can be provided to the Pressure Area. This should be done notwithstanding the possibility that the Board of Supervisors would be required to take action to reduce pumping in the Upper Valley and Forebay Areas to the extent necessary to prevent interference with the redistribution of Reservoir releases for the benefit of the Pressure Area.

TAI recently undertook a very extensive but basic analysis of the effects of the reservoirs on the various portions of the Salinas Valley. The attached Declaration of Joseph Scalmanini explains this analysis, which we refer to as a "conceptual model." While the Declaration describes the conceptual model analysis, we urge the Board of Supervisors to provide us with an opportunity to present this analysis and the factual record upon which it is based. We are prepared to make such presentation immediately. As explained in Mr. Scalmanini's Declaration, the irrigated area and associated applied groundwater requirements have remained nearly constant in the Pressure Area, while substantially expanding in the Upper Valley and Forebay areas over the last 40 to 50 years. At the same time, groundwater levels have been generally constant in the Upper Valley and Forebay, but have continued to drop in the Pressure Area. Consequently, while TAI has paid charges for construction and operation of the reservoirs, there has been an apparent lack of identifiable benefit to the Pressure Area from such reservoir operations. TAI continues to wait for completion of the second half of the project for delivery of the water which it was intended to receive.

TAI believes the released stored water which has so far essentially benefitted only the Upper Valley and the Forebay should be made equally available to the Pressure Area. The Upper Valley and Forebay have not established and cannot establish water rights (pre-1914 or otherwise) to the released stored water. The entire valley should receive equal benefits from the Agency’s reservoir releases. This is not a question which should lead to a valley-wide water rights adjudication; Agency counsel has explained that stored water is released for the
benefit of the entire Salinas Basin and historical storage and release of water from the Agency reservoirs has not interfered with the prior rights of any user.

Other parties have filed claims that rely on arguments that Zones 2 and 2A have conferred no benefit to them because they have pre-1914 appropriative water rights to all the water they receive. They even claim they have received less than they have rights to because of the Agency's storage operations. However, the attached Declaration of Stephen Wee casts serious doubt upon the validity of the pre-1914 water rights claims described numerous times by Mr. Patrick Maloney on behalf of his clients. Mr. Wee's Declaration indicates that those water rights have not been substantiated, and leads to the conclusion that assertions regarding those claims have been greatly overstated.

Please advise us when may be able to schedule a presentation of this factual record to the Board of Supervisors.

Sincerely,

[Signature]

Rick Antle
President

[Signature]

Gary Tanumura
Vice President, Farming

Attachments
BEFORE THE MONTEREY COUNTY BOARD OF SUPERVISORS

CLAIM FOR ALTERNATIVE RELIEF

BY
TANIMURA & ANTLE, INC.
A.P.N. 177-021-13

Rick Antle
Gary Tanimura
TANIMURA & ANTLE, INC.
P.O. Box 4070
Salinas, CA 93912
(408) 455-2950 or (408) 455-3640
CLAIM FOR ALTERNATIVE RELIEF

1. CLAIMANT: This claim is filed by Tanimura & Antle, Inc. ("TAI"), P.O. Box 4070, Salinas, California, 93912 [(408) 455-2950].

2. ASSESSORS PARCEL NUMBER: The parcel which is the subject of this claim is A.P.N. 177-021-13, which is approximately 57 acres.¹

3. CHARGES SUBJECT TO CLAIM: The charges which are the subject of this claim are the standby or availability charges levied against A.P.N. 177-021-13 from 1986 through 1996.

4. FACTUAL BASIS FOR CLAIM: (a) The Monterey County Water Resources Agency Act (Act) authorizes the Monterey County Water Resources Agency's (Agency's) Board of Supervisors to create zones and to institute projects for the benefit of particular zones. Pursuant to the Act, the Board of Supervisors created Zones 2 and 2A. The Agency constructed Nacimiento and San Antonio Reservoirs which, in conjunction with a conveyance system, were to benefit all parcels located within Zones 2 and 2A. The Agency has never built the conveyance system.

(b) The Act authorizes the Board of Supervisors to adopt by ordinance annual standby or availability charges, and to levy those charges against "any land to which water is made available." Since 1980, the Board of Supervisors has levied standby or availability charges against parcels located in Zones 2 and 2A. Charges have been levied based on land classifications and have not taken into account the availability of water to the lands assessed.

(c) A.P.N. 177-021-13 is located within Zones 2 and 2A and has been assessed standby or availability charges since 1986.

(d) The Agency has not made water available to A.P.N. 177-021-13 as intended by the operation of Nacimiento and San Antonio Reservoirs, and therefore A.P.N. 177-021-13 has not received the intended benefits of Nacimiento or San Antonio Reservoir operation;² yet the

¹A.P.N. 177-021-13 has previously been a portion of A.P.N. 177-021-001, and subsequently of A.P.N. 177-021-008.

²See Attached Declaration by Joseph Scalmanini, Luhdorff and Scalmanini, Consulting (continued...)
Board of Supervisors has levied charges against A.P.N. 177-021-13 as if it had been so benefitted by the Reservoirs.

(e) As distinguished from other claims which have been filed, TAI does not assert that water rights of water users do or should have any bearing on the acceptance and disposition of this claim. Claimant TAI also notes that, to the extent various other claimants have made assertions as to pre-1914 filings, for example, that those assertions appear to be overstated.3

5. RELIEF REQUESTED: (a) TAI's preferred relief is that the Board of Supervisors direct apportionment of all costs and benefits of implementing the Basin Management Plan (BMP) equally throughout Zones 2 and 2A. In this context, TAI considers "BMP costs" to include the costs associated with the construction, operation and maintenance of Nacimiento and San Antonio Reservoirs, as well as the funds necessary to complete the project, which includes construction, operation and maintenance of a water distribution system. Until such BMP costs have been equally apportioned, and all elements of the BMP have been completed and are being implemented, so that equal benefits are realized, TAI requests that the Board of Supervisors provide immediate interim relief to the Pressure Area, particularly A.P.N. 177-021-13, by ordering the immediate reoperation of the Nacimiento and San Antonio Reservoirs. The Reservoirs should be operated so that surface flow from released stored water reaches Davis Road, north of Spreckels (instead of the Agency's current operating criteria that the Salinas River "wet line" reach only nine miles north of Chualar), so that direct and in-lieu benefits can be provided to the Pressure Area. This should be done notwithstanding the possibility that the Board of Supervisors would be required to take action to reduce pumping in the Upper Valley and Forebay Areas to the extent necessary to prevent interference with the redistribution of Reservoir releases for the benefit of the Pressure Area.

(b) Alternatively, if the costs and benefits of implementing the BMP are not, or cannot be, apportioned equally as requested in paragraph 5(a), TAI requests a refund of all standby or availability charges paid for A.P.N. 177-021-13 since 1986, and a variance from any future assessments associated with Zones 2 and 2A. TAI requests a variance until such time as the entire project, including the conveyance system, is completed and A.P.N. 177-021-13 receives the intended benefits of a completed project. This requested relief does not include a request for detachment from Zones 2 or 2A, or any successor zone or zones. Until such BMP costs have been equally apportioned, and all elements of the BMP have been completed and are being

2(...continued)
Engineers, regarding a "conceptual model" of the Salinas Basin which shows that the Upper Valley and Forebay Areas have received essentially all of the Reservoir operation benefits to date.

3See Attached Declaration of Steven Wee, JRP Historical Consulting Services, regarding water rights claims made by Patrick Maloney on behalf of various South Valley clients.
implemented, so that equal benefits are realized, TAI requests that the Board of Supervisors provide immediate interim relief to the Pressure Area, particularly A.P.N. 177-021-13, by ordering the immediate reoperation of the Nacimiento and San Antonio Reservoirs. The Reservoirs should be operated so that surface flow from released stored water reaches Davis Road, north of Spreckels (instead of the Agency's current operating criteria that the Salinas River "wet line" reach only nine miles north of Chualar), so that direct and in-lieu benefits can be provided to the Pressure Area. This should be done notwithstanding the possibility that the Board of Supervisors would be required to take action to reduce pumping in the Upper Valley and Forebay Areas to the extent necessary to prevent interference with the redistribution of Reservoir releases for the benefit of the Pressure Area.

CLAIMANT:

Rick Antle
President

DATED:

March 24, 1997

Gary Tadimura
Vice President, Farming

March 24, 1997
Declaration of Joseph C. Scalmanini Related to a Conceptual Analysis of Historical Ground-Water Benefits of the Nacimiento and San Antonio Projects

I am a registered Civil Engineer in California and principal partner in Luhdorff and Scalmanini, Consulting Engineers, Woodland, California, specializing in ground-water hydrology since cofounding the firm in 1980. I have conducted and directed ground-water resource assessments and investigations, developed and implemented ground-water monitoring and management programs, designed ground-water development projects throughout California over the last 25 years, and have reviewed and developed ground-water models to analyze ground-water resources issues. Prior to the founding of Luhdorff and Scalmanini, Consulting Engineers, I was a Development Engineer at the University of California, Davis, where I directed applied research in ground water and taught classes in Hydraulics and Principles of Groundwater Management.

I was asked by Tanimura & Antle to prepare a conceptual analysis of historical ground-water benefits from operation of the Nacimiento and San Antonio projects. I have independent knowledge of the facts stated in this Declaration, based on my research of the documents and materials referenced herein. I make this Declaration in support of Tanimura & Antle’s claim for alternative relief.

I undertook a conceptual analysis of the historical impacts of the Nacimiento and San Antonio projects on ground-water conditions and ground-water supply in the Salinas Valley below those projects. Because no such analysis has been completed by the Monterey County Water Resources Agency (MCWRA), there continues to be debate about whether ground-water and water supply benefits have been provided by the projects, and to what extent, if any, there have been benefits to the four subareas that are well known in the valley: the Pressure Zone, Forebay, East Side, and Upper Valley. Recently, in light of claims that no benefits have occurred and that no water is "delivered" from the projects for water supply, MCWRA has begun to consider expansion of its Integrated Ground Surface Water Model (IGSM) to conduct focused "hindcasting" to compare real (actual history) and simulated (without the projects) conditions in order to quantitatively assess the impacts of the projects on ground-water resources and water supply in the valley.

This conceptual analysis is based on existing historical data, without the use of a physically based numerical ground-water flow model, with recognition that the MCWRA’s IGSM is the obvious numerical model to be ultimately extended back in time to simulate no-project conditions. The conceptual model was originally envisioned as a simplified analysis of the Salinas Valley stream-aquifer system under pre- and post-project conditions; it would logically precede any more detailed analysis of "with" vs. "without" project conditions that could subsequently be conducted using IGSM. However, the conceptual model results, while not to be over concluded, provide definite insight into both the apparent ground-water and water supply benefits as well as the apparent lack of ground-water benefits in different parts of the valley. The conceptual model results suggest that there has been substantial benefit from the projects to the ground-water supply.
in the southern part of the valley (Upper Valley and Forebay) and much less, if any, benefit in the northerly parts (Pressure Zone and East Side) of the valley.

Conceptual Model

The conceptual model of the Salinas Valley stream-aquifer system basically includes examination of three principal components of the ground-water storage and water supply system in the valley: water requirements for irrigation (ground-water pumpage), ground-water storage, and streamflow losses, all based on existing published data. Historical ground-water levels in the four sub-areas of the valley show essentially constant conditions throughout the Upper Valley and Forebay from well before the projects to the present time; over the same time, ground-water levels have dramatically declined in much of the East Side and have steadily declined, but not to as great a depth, in the Pressure Zone. During a comparable time period, one would expect that land not previously cultivated has been brought into production as a combination of improved irrigation technology and market demand has permitted and encouraged the planting of lands not previously irrigable. If the latter is true, then the essentially constant ground-water supply in the Upper Valley - Forebay areas must have been augmented by additional recharge. The increased ground-water demand for newly irrigated lands, since there has not been any change in ground-water levels or storage, has had to be replaced by increased ground-water recharge; otherwise, ground-water levels and storage would decline.

Land Use

The conceptual model analysis of changes in land use over time is based on data and maps prepared by the State Department of Water Resources and the MCWRA (land use surveys in 1944, 1953, 1963, 1968, 1973, 1976, 1980, 1982 and 1989) (see Attachment). Total irrigated area in the valley has increased from about 125,000 acres in 1944 (DWR Bulletin 52) to about 195,000 acres in 1989 (DWR Land Use Maps). Notable increases in irrigated area have occurred in the Upper Valley, the Forebay, and the East Side from pre-project (early 1950’s) to post-project (late 1980’s). In the four sub-areas of the valley, irrigated land use has changed from pre-to post-project approximately as follows.

<table>
<thead>
<tr>
<th>Irrigated Land (acres)</th>
<th>Salinas Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Projects (1950)</td>
</tr>
<tr>
<td>Upper Valley</td>
<td>24,500</td>
</tr>
<tr>
<td>Forebay</td>
<td>40,500</td>
</tr>
<tr>
<td>East Side</td>
<td>18,000</td>
</tr>
<tr>
<td>Pressure Zone</td>
<td>53,000</td>
</tr>
<tr>
<td>Total</td>
<td>136,000</td>
</tr>
</tbody>
</table>
The growth of irrigated land use over the entire 1944-1989 period in each of the four sub-areas of the valley is illustrated in the enclosed Figures 1 - 4; the total growth of valley-wide irrigated area is illustrated in Figure 5. Such increases suggest that there has been a corresponding increase in ground-water pumpage over the same time since all agricultural water supply is pumped ground water.

Agricultural Water Requirements

The conceptual model analysis of agricultural water requirements is based on upper pumping limits and data reported in MCWRA’s 1995 Ground Water Extraction Report (see Attachment). Additional water supply has been required to meet the overall increases in irrigated area in the Upper Valley, Forebay, and East Side sub-areas of the Salinas Valley over the pre- to post-project period. In the Salinas Valley, ground-water pumpage is the only method available to directly meet irrigation demand. As a result, ground-water pumpage for irrigation has notably increased from the early 1950’s to the late 1980’s. Approximate water requirements for the four sub-areas, for pre- and post-project times, are as follows:

Irrigation Water Requirements (acre-feet/year)
Salinas Valley

<table>
<thead>
<tr>
<th></th>
<th>Pre-Projects (1950)</th>
<th>Post-Projects (1980’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Valley</td>
<td>80,000 - 100,000</td>
<td>170,000 - 190,000</td>
</tr>
<tr>
<td>Forebay</td>
<td>110,000 - 160,000</td>
<td>155,000 - 225,000</td>
</tr>
<tr>
<td>East Side</td>
<td>40,000 - 50,000</td>
<td>80,000 - 100,000</td>
</tr>
<tr>
<td>Pressure Zone</td>
<td>120,000 - 145,000</td>
<td>120,000 - 145,000</td>
</tr>
<tr>
<td>Total</td>
<td>350,000 - 455,000</td>
<td>525,000 - 660,000</td>
</tr>
</tbody>
</table>

The growth of water requirements (pumpage) for irrigation over the entire 1944-1989 period in each of the four sub-areas is illustrated in the enclosed Figures 6 - 9.

The range of irrigation water demand for each sub-area was developed by using three similar but slightly different methods to estimate applied water requirements from irrigated land use as described above. The first method, utilized to develop an upper estimate of water demand, is based on upper pumping limit values proposed by the MCWRA in 1993 as a basis for limiting total agricultural pumpage in the valley. The second method is based on the MCWRA’s 1995 Ground Water Extraction Report, in which 98 percent of valley pumpers participated. That report also included average unit applied water factors (acre-feet per acre per year) for each sub-area. In light of recent reports (by essentially all pumpers) of actual pumpage and associated applied water rates, this method can probably be considered the most realistic, at least for recent years;
the history of irrigation science and technology suggests that applied water was probably higher in earlier years. The third method is a modification of the upper pumping limit method to recognize the increased application of drip irrigation, primarily in vineyards in the southern parts of the valley. In this method, it is assumed that applied water on vineyards has progressively decreased from an upper pumping limit value (3.89 to 4.11 in./yr. in the Forebay and Upper Valley, respectively) in the early 1980’s to 12 in./yr. by 1989 on all vineyards reported to have drip irrigation installed (about half the total vineyard acreage).

It is notable that the overall pumpage for irrigation in the valley has increased by about 50 percent, or about 200,000 acre-feet per year, from pre- to post-project conditions. More notably, essentially none of the increase has occurred in the Pressure Zone, and only about 40,000 to 50,000 AFY of the increase have occurred in the East Side. The balance of the valley-wide pumping increase, on the order to 150,000 AFY, has taken place in the Upper Valley and Forebay areas.

Ground-Water Levels

The conceptual model analysis of ground-water levels is based on hydrographs of ground-water measurements made over the last 50 to 60 years and maintained by MCWRA (see Attachment). Historical ground-water levels in the Upper Valley and Forebay have remained essentially constant despite the substantially increased water requirements (except when irrigation season streamflow is dramatically reduced, as discussed below) (Figures 10 - 15). This suggests that increased ground-water recharge occurred in these parts of the valley to meet or offset the increased demands without depleting any ground-water storage. Historical ground-water levels in the East Side area have notably declined, suggesting that the increased water requirements in that area have been met, at least in part, by depleting ground-water storage (although some of the increased demand could have been met by increased subsurface inflow from the Forebay, and possibly from the Pressure Zone) (Figures 16 - 18). Historical ground-water levels in the Pressure Zone have also progressively declined, but less than in the East Side, suggesting that some of the long-term water requirements have been met by depletion of ground-water storage (although some of the demand could also have been met by increased subsurface inflow from the Forebay) (Figures 19 - 21). The landward advancement of seawater intrusion, discussed below, further suggests that depletion of ground-water storage has met part of the historical Pressure Zone water demand.

Of the preceding general observations about ground-water storage, the most significant and notable, at least from a conceptual point of view, are those related to the Upper Valley and Forebay. Despite increased water demands (pumpage) on the order of 150,000 AFY, there has been no change in ground-water storage. Such conditions are not possible unless there is an offsetting increase in ground-water recharge to, in this case, maintain the aquifer system at the same storage.
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Pre-project streamflow records in the Upper Valley (Bradley) are limited to a seven year period only (1949-56), immediately before construction of Nacimiento Reservoir. During that period, which was near normal based on long-term precipitation, an average of about 83,000 AFY flowed past Bradley during the March - October irrigation season. During the same time, an average of about 27,000 AFY flowed past Spreckels. There are no intervening stream gage records, e.g. at Soledad. These figures suggest an average pre-project "loss" (recharge) from the river of about 56,000 AFY during the irrigation season between Bradley and Spreckels.

Post-project streamflow records show a notable change in the timing of flows into the valley at Bradley; there is flow in all months, with higher flows in all the months of the irrigation season. There is, on average, three times more streamflow into the valley during the irrigation season than under pre-project conditions; and streamflow "losses" (apparent recharge) are higher, on average about 155,000 AFY during the March - October irrigation season, divided about as follows: 87,000 AFY between Bradley and Soledad and 68,000 AFY between Soledad and Spreckels. Total streamflow losses during the irrigation season are therefore about 100,000 AFY higher under project conditions than under unregulated pre-project conditions.

A substantial portion of streamflow during the irrigation season is lost to infiltration between Bradley and Soledad (through the Upper Valley and about half the Forebay). Stream gage data shows the balance (68,000 AFY) infiltrates between Soledad and Spreckels; however, geologic conditions and ground-water level responses (flat hydrographs) suggest that the majority of that infiltration occurs between Soledad and Gonzales, or over the lower half of the Forebay and the most inland part of the Pressure Zone.

Seawater Intrusion

Despite the substantial increase in streamflow and stream recharge in the Upper Valley and Forebay, which has maintained a "full" aquifer in both those sub-areas, ground-water levels have continued to decline in both the Pressure Zone and the East Side. Notably, in the Pressure Zone, the rate of ground-water level decline continues essentially unchanged since well before the projects; and seawater intrusion has progressed substantially inland from where it was prior to the projects. Seawater has intruded despite the essentially constant land and water use in the Pressure Zone from pre-project conditions to the present. In the East Side, ground-water levels have declined further, at a constant pre- and post-project rate, although some of the decline can undoubtedly be attributed to the increased land and water use in that area.

There is some evidence that the rates of ground-water level decline in the southern portions of
both the Pressure Zone and the East Side are somewhat dampened when compared to the balance of those sub-areas, possibly due to the presence of higher and constant ground-water levels in the nearby Forebay area. However, ground-water trends beyond the immediate proximity of the Forebay continue to decline unchanged from pre-project conditions, and seawater intrusion has moved notably inland, both suggesting no identifiable benefits from the reservoir operations in the majority of the Pressure Zone and East Side areas.

Summary

The conceptual analysis definitely suggests that the Nacimiento and San Antonio projects have been and are responsible for a substantial increase in stream-aquifer recharge during the irrigation season, the great majority of which occurs over the Upper Valley - Forebay area. It appears that such increased recharge from the reservoir releases, over and above what occurs in the November - February non-irrigation or "rainy" season, is a major benefit to those areas via sustained essentially constant ground-water conditions (i.e. water levels and storage) and a constant available irrigation water supply. These constant conditions are present despite the substantial historical increase in applied water requirements (ground-water pumpage) over both those areas. Conversely, the lack of any substantive change in the rate of ground-water level decline in the Pressure Zone and the continued landward progression of seawater intrusion in the Pressure Zone, despite essentially constant land use and water demand, and despite project operations, illustrate an apparent lack of identifiable historical benefit to the Pressure Zone as a result of the project.

An additional observation which further supports the above conceptual model conclusions is the response of the ground-water basin to drastically reduced streamflow during the irrigation season. In 1990, with applied water demands at higher post-project levels in the Upper Valley and Forebay, streamflow into the system was essentially reduced to zero due to ongoing severe drought. Ground-water levels correspondingly declined, the only decline of such magnitude throughout the pre- and post-projects periods of record. That ground-water basin response further supports the conceptual conclusion that the project-regulated streamflows are recharging the Upper Valley - Forebay areas at sufficiently higher rates to maintain ground-water storage unchanged despite higher demands (pumpage) over the last 40 years. Interruption of the streamflow produces an immediate and corresponding depletion of ground-water storage. Stated another way, it appears that the Upper Valley - Forebay aquifer system would be seriously drawn down today if historical water demands had increased as they have and if there were no project-regulated streamflow through the irrigation season to recharge the aquifer system and thus offset the increased pumpage.

I declare under penalty of perjury of the laws of the State of California that the foregoing is true and correct, to the best of my knowledge, and that this Declaration was executed on March 21, 1997, at Woodland, California.
## ATTACHMENT

**Declaration of Joseph C. Scalmanini**

**List of Documents**

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Figure
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Figure 4
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Figure 7
Historical Applied Water
East Side
Figure 9
Historical Applied Water
Upper Valley

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- UPL Variable Water Use 1.0-4.11 af/a
- County GW Extraction Rate 3.44 af/a
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Ground-Water Level Hydrograph
Forebay
Figure 12
Ground-Water Level Hydrograph
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Ground-Water Level Hydrograph
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Ground-Water Level Hydrograph
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Ground-Water Level Hydrograph
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Figure 17
Ground-Water Level Hydrograph
East Side
Figure 18
Ground-Water Level Hydrograph
East Side
Figure 19
Ground-Water Level Hydrograph
Pressure Zone
Figure 20
Ground-Water Level Hydrograph
Pressure Zone
Declaration of Joseph C. Scalmanini Related to a Conceptual Analysis of Historical Ground-Water Benefits of the Nacimiento and San Antonio Projects

I am a registered Civil Engineer in California and principal partner in Luhdorff and Scalmanini, Consulting Engineers, Woodland, California, specializing in ground-water hydrology since co-founding the firm in 1980. I have conducted and directed ground-water resource assessments and investigations, developed and implemented ground-water monitoring and management programs, designed ground-water development projects throughout California over the last 25 years, and have reviewed and developed ground-water models to analyze ground-water resources issues. Prior to the founding of Luhdorff and Scalmanini, Consulting Engineers, I was a Development Engineer at the University of California, Davis, where I directed applied research in ground water and taught classes in Hydraulics and Principles of Groundwater Management.

I was asked by Tanimura & Antle to prepare a conceptual analysis of historical ground-water benefits from operation of the Nacimiento and San Antonio projects. I have independent knowledge of the facts stated in this Declaration, based on my research of the documents and materials referenced herein. I make this Declaration in support of Tanimura & Antle's claim for alternative relief.

I undertook a conceptual analysis of the historical impacts of the Nacimiento and San Antonio projects on ground-water conditions and ground-water supply in the Salinas Valley below those projects. Because no such analysis has been completed by the Monterey County Water Resources Agency (MCWRA), there continues to be debate about whether ground-water and water supply benefits have been provided by the projects, and to what extent, if any, there have been benefits to the four subareas that are well known in the valley: the Pressure Zone, Forebay, East Side, and Upper Valley. Recently, in light of claims that no benefits have occurred and that no water is "delivered" from the projects for water supply, MCWRA has begun to consider expansion of its Integrated Ground Surface Water Model (IGSM) to conduct focused "hindcasting" to compare real (actual history) and simulated (without the projects) conditions in order to quantitatively assess the impacts of the projects on ground-water resources and water supply in the valley.

This conceptual analysis is based on existing historical data, without the use of a physically based numerical ground-water flow model, with recognition that the MCWRA's IGSM is the obvious numerical model to be ultimately extended back in time to simulate no-project conditions. The conceptual model was originally envisioned as a simplified analysis of the Salinas Valley stream-aquifer system under pre- and post-project conditions; it would logically precede any more detailed analysis of "with" vs. "without" project conditions that could subsequently be conducted using IGSM. However, the conceptual model results, while not to be over concluded, provide definite insight into both the apparent ground-water and water supply benefits as well as the apparent lack of ground-water benefits in different parts of the valley. The conceptual model results suggest that there has been substantial benefit from the projects to the ground-water supply
in the southern part of the valley (Upper Valley and Forebay) and much less, if any, benefit in
the northerly parts (Pressure Zone and East Side) of the valley.

Conceptual Model

The conceptual model of the Salinas Valley stream-aquifer system basically includes
examination of three principal components of the ground-water storage and water supply system
in the valley: water requirements for irrigation (ground-water pumpage), ground-water storage,
and streamflow losses, all based on existing published data. Historical ground-water levels in the
four sub-areas of the valley show essentially constant conditions throughout the Upper Valley and
Forebay from well before the projects to the present time; over the same time, ground-water
levels have dramatically declined in much of the East Side and have steadily declined, but not to
as great a depth, in the Pressure Zone. During a comparable time period, one would expect that
land not previously cultivated has been brought into production as a combination of improved
irrigation technology and market demand has permitted and encouraged the planting of lands not
previously irrigable. If the latter is true, then the essentially constant ground-water supply in the
Upper Valley - Forebay areas must have been augmented by additional recharge. The increased
ground-water demand for newly irrigated lands, since there has not been any change in ground­
water levels or storage, has had to be replaced by increased ground-water recharge; otherwise,
ground-water levels and storage would decline.

Land Use

The conceptual model analysis of changes in land use over time is based on data and maps
prepared by the State Department of Water Resources and the MCWRA (land use surveys in
area in the valley has increased from about 125,000 acres in 1944 (DWR Bulletin 52) to about
195,000 acres in 1989 (DWR Land Use Maps). Notable increases in irrigated area have occurred
in the Upper Valley, the Forebay, and the East Side from pre-project (early 1950’s) to post­
project (late 1980’s). In the four sub-areas of the valley, irrigated land use has changed from pre­
to post-project approximately as follows.

<table>
<thead>
<tr>
<th>Irrigated Land (acres)</th>
<th>Pre-Projects (1950)</th>
<th>Post-Projects (1980’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salinas Valley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Valley</td>
<td>24,500</td>
<td>47,500</td>
</tr>
<tr>
<td>Forebay</td>
<td>40,500</td>
<td>58,200</td>
</tr>
<tr>
<td>East Side</td>
<td>18,000</td>
<td>36,600</td>
</tr>
<tr>
<td>Pressure Zone</td>
<td>53,000</td>
<td>52,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136,000</strong></td>
<td><strong>194,300</strong></td>
</tr>
</tbody>
</table>
The growth of irrigated land use over the entire 1944-1989 period in each of the four sub-areas of the valley is illustrated in the enclosed Figures 1 - 4; the total growth of valley-wide irrigated area is illustrated in Figure 5. Such increases suggest that there has been a corresponding increase in ground-water pumpage over the same time since all agricultural water supply is pumped ground water.

Agricultural Water Requirements

The conceptual model analysis of agricultural water requirements is based on upper pumping limits and data reported in MCWRA’s 1995 Ground Water Extraction Report (see Attachment). Additional water supply has been required to meet the overall increases in irrigated area in the Upper Valley, Forebay, and East Side sub-areas of the Salinas Valley over the pre-to post-project period. In the Salinas Valley, ground-water pumpage is the only method available to directly meet irrigation demand. As a result, ground-water pumpage for irrigation has notably increased from the early 1950’s to the late 1980’s. Approximate water requirements for the four sub-areas, for pre- and post-project times, are as follows:

<table>
<thead>
<tr>
<th>Pressure Zone</th>
<th>Salinas Valley</th>
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<tr>
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<tr>
<td>(1950)</td>
<td>(1980’s)</td>
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<tr>
<td>Upper Valley</td>
<td>80,000 - 100,000</td>
</tr>
<tr>
<td>Forebay</td>
<td>110,000 - 160,000</td>
</tr>
<tr>
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<td>40,000 - 50,000</td>
</tr>
<tr>
<td>Pressure Zone</td>
<td>120,000 - 145,000</td>
</tr>
<tr>
<td>Total</td>
<td>350,000 - 455,000</td>
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The growth of water requirements (pumpage) for irrigation over the entire 1944-1989 period in each of the four sub-areas is illustrated in the enclosed Figures 6 - 9.

The range of irrigation water demand for each sub-area was developed by using three similar but slightly different methods to estimate applied water requirements from irrigated land use as described above. The first method, utilized to develop an upper estimate of water demand, is based on upper pumping limit values proposed by the MCWRA in 1993 as a basis for limiting total agricultural pumpage in the valley. The second method is based on the MCWRA’s 1995 Ground Water Extraction Report, in which 98 percent of valley pumpers participated. That report also included average unit applied water factors (acre-feet per acre per year) for each sub-area. In light of recent reports (by essentially all pumpers) of actual pumpage and associated applied water rates, this method can probably be considered the most realistic, at least for recent years;
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Figure 2
Historical Irrigated Land Use

Year

Irrigated Acreage
50000
40000
30000
20000
10000

LUHDOFF & SCALMANINI
CONSULTING ENGINEERS
Figure 4
Historical Irrigated Land Use
Upper Valley
Declaration of Stephen R. Wee Relating to 22 Pre-1914 and 3 "Mission" Water Right Claims Made by Patrick J. Maloney on Behalf of Various South County Clients

Introduction

I am a Principal with JRP Historical Consulting Services and have been retained by Tanimura & Antle to investigate the accuracy of various water right claims made by Mr. Patrick J. Maloney. I make this declaration in support of Tanimura & Antle’s claim for alternative relief. I have independent knowledge of the facts stated herein, based on my individual research of the documents and materials referenced herein.

I undertook an analysis of pre-1914 water rights claims as described in an attachment to a letter dated July 29, 1996 from Patrick J. Maloney to Richard Satowski of the State Water Resources Control Board. The letter to Mr. Satowski with Mr. Maloney’s claims list and maps are included as Attachment No. 1. In that letter, Mr. Maloney makes the claim that he “can trace continuous usage of the water on the lands covered by the claims to the present.” These 22 claims purport to support existing valid appropriative water rights held by Mr. Maloney’s clients whose properties are located in the “Upper Valley” and “Forebay” areas of the Salinas Valley, as those areas are defined in the Department of Public Works, Division of Water Resources, Bulletin 52.1 (Figure 1).

My independent investigation of each of these 22 claims was to determine whether historical evidence indicates the existence of valid pre-1914 water rights. If the notice of appropriation was followed by actual development work, I have tried to recover data from the historic record to determine the capacity of the system, the places water was used, the quantity of use, and the period of use. Where irrigation systems were built and later transferred to new owners or abandoned, I have documented the use, transfer, and abandonment of each system. It is important to note that this declaration is based upon a research effort still in progress. Additional work is necessary to fully evaluate the validity of these water rights. Nevertheless, in several instances enough research has been completed to verify, reject, or cast serious doubt upon the validity of the claim to a pre-1914 appropriative water right. The reasons for these conclusions vary. In some cases, posting of a notice of intent to divert water was not followed by actual development. In other cases, there was minimal preliminary planning and development, but no beneficial use was made of the water. Elsewhere, construction and beneficial use occurred, but the irrigation system was subsequently abandoned. In addition to these problems, at least 5 of these 22 claims are notices of appropriations for projects intended to irrigate lands within the Pressure Area, and not

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1 Department of Public Works, Division of Water Resources, Salinas Valley Investigation, Bulletin 52 (Sacramento, 1946). Wherever the terms Pressure Area, East Side Area, Forebay Area, Arroyo Seco Cone Area, or Upper Valley Area are used in this declaration, it refers to the hydrologic zones defined in Bulletin 52.
in the Upper Valley or Forebay, as alleged by Mr. Maloney. In addition to his claim for the 22 pre-1914 water rights, Mr. Maloney has recently suggested that the South County has water rights based upon irrigated agriculture at Mission San Antonio de Padua, the Mission San Miguel Arcangel, and the Mission Nuestra Senora de Soledad.

Section 1.  Summary Conclusions

Below I have separated the 22 pre-1914 claims into six categories based upon the 22 notices of appropriation referenced by Mr. Maloney. I have included a brief conclusion regarding the validity of each of the 22 claims.

Claims Supporting Diversion and Use in the Pressure Area.

Mr. Maloney asserts that these 22 claims are not only valid, but support his contention that the South County alone is the geographic area benefited by each filing. However, historic evidence suggests otherwise for at least seven claims. Five of these fall into the category of supporting water rights in the Pressure Area exclusively. Without commenting on the validity of these five claims, the historic evidence makes it abundantly clear that each of these five notices of appropriation were made with an intent to irrigate land in the Pressure Area. Without an offer of proof of a change in diversion and point of use far upstream, these rights do not support Mr. Maloney's claim for a water right attached to lands in the South County.

Claim No. 1 supports an intended use north of Salinas on the Moro Cojo Rancho.

Claim No. 2 supports an intended use north of Salinas on the Moro Cojo Rancho.

Claim No. 13 supports an intended use northwest of Salinas on the Las Salinas Rancho.

Claim No. 17 supports an intended use north of Salinas on the Buena Esperanza Rancho.

Claim No. 18 supports an intended use northwest of Gonzales on the Guadalupe Rancho.

Notices of Appropriation Supporting Diversion and Uses Outside of Monterey County Water Agency's Zones 2 and 2A.

Two of the notices of appropriation describe points of diversion and places of use far removed from Zones 2 and 2A in the Salinas Valley. Without commenting on the potential validity of these claims to water lands at the original locations described in the notices of appropriation, and barring proof showing that these rights were transferred to the valley, they do

2 It could be noted that many of the notices of appropriation, especially the larger ones, claim as their intended place of use lands located in the northern part of the Salinas Valley, as well as the southern portion of the valley. Those notices are not included in this category.
not appear to represent valid pre-1914 water rights that support uses in the South County within Zones 2 and 2A.

Claim No. 6 supports an intended place of diversion and use in the San Antonio Valley far above the San Antonio Reservoir.

Claim No. 16 supports an intended place of diversion and use in Arroyo Seco Canyon some 15 miles west of Zones 2 and 2A.

**Notices of Appropriation Not Followed by Development Work**

In order for a notice of appropriation to ripen into a water right the claimant had to proceed with due diligence with the development work described in the notice and apply the water to beneficial use. Based on the historic evidence collected to date, the following claims appear of doubtful validity because the paper filing was not followed by any actual development prior to 1914.

Claim No. 3
Claim No. 9
Claim No. 12
Claim No. 14
Claim No. 20

**Water Systems Developed in Part, but No Beneficial Uses Made**

This category is reserved for projects where actual development work was initiated, but historic evidence to date suggests that the project never delivered any water.

Claim No. 11

**Water Systems That Were Constructed and Beneficially Used, With Evidence of Later Abandonment**

During the mid-1880s and into the early years of the 20th century several major canal projects were initiated by water companies interested in providing water to their own lands and to other irrigators by contract. The most visible and important of these companies was the Salinas Valley Water Company. These companies were plagued with the problem of securing an adequate water supply from the Salinas River and its tributaries, especially in the dry season from May through October without the benefits of storage reservoirs. The companies also faced other obstacles,
including a predilection to dry farming among many grain growers, securing rights of way over private property, seepage losses in canals, flood damage to irrigation works in the bed of the rivers and creeks, and high costs relative to the income derived from water sales. These companies lost major customers, such as Spreckels Sugar Company, because as pumping technologies improved during the early decades of the 20th century, irrigators turned to pumping from their own wells as a more reliable and cheaper source of water. This trend accelerated after 1911 when rural electrification in Monterey County extended down the valley as far south as King City and when deep well turbines came into general use.

Claim No. 4
Claim No. 5
Claim No. 10
Claim No. 21

*Water Systems that Were Constructed and Beneficially Used, Without Evidence of Abandonment*

Claims included in this category represent those that have been researched through the project construction phase with some research completed to give a picture of early beneficial uses that were made of the water so diverted. Additional historical research is needed to determine the length of use and the disposition of the irrigation systems. Only one of these, Claim No. 22, appears to currently use a direct diversion surface water delivery system to irrigate lands.

Claim No. 7
Claim No. 8
Claim No. 15
Claim No. 19
Claim No. 22

Section 2: Analysis of Mr. Maloney’s 22 Pre-1914 Notices of Appropriation:

The data on each water claim is presented in a standard format. First, next to the number of the water claim as identified by Mr. Maloney, the name of the claimant is provided, followed by the source of the diversion, date the notice was posted, and finally by a reference to the volume and page of the notice as recorded in the Monterey County Recorder’s Book entitled “Water Rights.” Below this general heading, I have provided the key information included in each of the 22 claims as required under the 1872 Civil Code: the point of diversion, the beneficial purpose(s) for which
the water was to be used, the intended place of use, the method of conveyance, and the amount of water claimed expressed in the archaic miner’s inches of measurement and in its modern equivalent in cubic feet per second. Finally, these five items are followed by a synopsis of the historic evidence collected to date that bears upon the validity of the pre-1914 water claim generally.\(^3\)

Without a map showing the major land ownership pattern laid on the land through the granting of ranchos during the Mexican Period, it is impossible to understand these notices of appropriation. Figure 2 is included to orient the reader to the location of the Mexican Ranchos mentioned in so many of the notices of appropriation. Some modern geographic landmarks have been placed on the map to further assist in relating rancho locations to current towns and cities in the valley.


Point of Diversion: Salinas River, on its right bank, between Estrada Crossing and the Monterey and Salinas Railroad bridge, about 300 yards above the bridge on Cooper’s Rancho.

Purpose: Irrigation.

Place of Use: On lands on the Cooper Rancho rented to Hanna by John B. H. Cooper, as agent for his mother.

Method of Conveyance: Pumps, ditches, and flumes. Pump -- rotary pump with 70 inch capacity. Flumes to be 12 inches square. Ditches 20 inches deep and 18 inches wide at bottom, 3 feet wide at top.

Amount Claimed: 144 miners inches under a four inch pressure (2.88 cfs).

Historic Data: Hanna’s point of diversion is described as being 300’ below the Salinas River crossing of the Monterey and Salinas Railroad. The Monterey and Salinas Valley Railroad was incorporated in 1874. The railroad ran a distance of 19 miles from the town of Monterey to the town of Salinas. It never extended its line up the valley beyond Salinas City. The railroad ceased operation in 1879. The railroad crossed the Salinas River on the Moro Cojo. A point 300 yards above the bridge would place the point of diversion near an old Mexican period ford, and near the southwestern corner of Rancho Bolsa del Potrero y Moro Cojo (also known as Cooper’s Rancho)\(^4\) Cooper’s mother also lived on the Rancho Bolsa del Potrero Moro Cojo. In May 1877 it is noted that she intended to install irrigation works on her property.\(^5\)

Hanna’s filing claimed that he began diverting from the river in May 1877. Hanna’s irrigation system, pumping plant, and irrigated lands along the Salinas River on the Moro Cojo Rancho north of Salinas are described in several contemporary sources. These descriptions match that

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3 The mapping of the specific areas to be benefitted by each claim provided in Mr. Maloney’s letter of June 29, 1996 to Mr Satowski (Attachment No. 1) is of poor quality. It has not been possible in most instances to relate the alleged water rights to specific parcels of land. Apparently, this is the only mapping Mr. Maloney has provided.


5 Salinas Index, May 17, 1877.
Figure 5

1945 and 1982 Irrigated Land Use
Salinas Valley
provided in the notice of appropriation itself. Historical evidence does not support Mr. Maloney's claim that this water right was filed for irrigation uses in the South County. Instead, this water filing supports a diversion north of the town of Salinas in the Pressure Area for use on the Moro Cojo Rancho on lands in the lower valley near the Salinas river between Salinas and Castroville.

2. Frank Kopman, Salinas River, October 18, 1877. (A: 58)

Point of Diversion: Salinas River, on right bank about 100 yards below the residence of claimant on Cooper's Rancho.
Purpose: Irrigation.
Place of Use: On agricultural lands "in or convenient to said river" on Cooper's Rancho rented by Kopman.
Method of Conveyance: Pumps, ditches, and flumes. Pump -- rotary pump with 70 inch capacity. Flumes to be 12 inches square. Ditches 20 inches deep and 18 inches wide at bottom, 3 feet wide at top.
Amount Claimed: 144 inches under a four inch pressure (2.88 cfs).
Historic Data: Kopman's water filing was made two days after Hanna's, and uses almost the same exact language to describe his claim. The size of the pumps and conveyance system was the same as Hanna's as was his claim to 144 inches. Kopman was also a renter of land on Cooper's Rancho Bolsa del Potrero Moro Cojo and his irrigated lands are described as being along the Salinas City Road in the vicinity of Castroville.

Historical evidence does not support Mr. Maloney's claim that this water right was filed for irrigation uses in the South County. Instead, this water filing supports a diversion north of the town of Salinas in the Pressure Area for use on Rancho Bolsa del Potrero Moro Cojo on lands near Castroville.

3. Carlisle S. Abbott & Solomon B. Boswell, San Lorenzo Creek, December 26, 1877 (A: 60)

Point of Diversion: On the north side of San Lorenzo Creek, about one-half mile above the northeast corner of their portion of the rancho where a ledge of rocks protruded from the bluff on the south side of the creek.
Purpose: Irrigation.
Place of Use: On lands owned jointly by the two claimants on a portion of the "San Lorenzo de Sanchez Rancho," about 12,000 acres of land. As well as irrigating other adjacent lands.

6 The Pacific Rural Press, March 24, 1877 and April 21, 1877; Salinas City Index, August 9, 1877; Castroville Argus, November 24, 1877.
7 Pacific Rural Press, September 1, 8, and 24, 1877; Castroville Argus, September 22, 1877.
Method of Conveyance: Pumps, dams, ditches, flumes and other appliances. The ditch was to be 7 feet wide on the bottom and 3 feet deep; it would carry water around the bluff and through San Lorenzo Rancho and the claimants lands.

Amount Claimed: 3,000 inches under a four inch pressure (60 cfs)

Historical Data: There are three Mexican land grants in Monterey County named “San Lorenzo.” According to the water claim, Abbott and Boswell’s land was on the San Lorenzo (Sanchez) Grant, but this is certainly an error. It was on the San Lorenzo (Soberantez). Carlisle S. Abbott came to Monterey County in 1865 and settled on 4,400 acres in the area of the present Spreckels factory outside Salinas where he operated a large dairy. He also purchased 12,122 acres on the San Lorenzo (Soberantez) Rancho, including land where King City is now located. Solomon Boswell owned land jointly with Abbott on the rancho which was later partitioned with Boswell obtaining the area to the north of Abbott’s holdings. Abbott farmed and raised sheep on his upper valley ranch. Unfortunately, Abbott went bankrupt financing the ill-fated Salinas and Monterey narrow gauge railroad and left Monterey County for Arizona in 1879. Boswell died in the early 1880s. Abbott & Boswell’s San Lorenzo property was sold at public auction in 1882 to satisfy their debt to Henry & John Cowell and Henry Dodge. No transfer of water rights is mentioned in that deed.

The rainfall season of 1876-1877 was one of the driest experienced by ranchers and farmers of Salinas Valley up to that time. Local newspapers and agricultural journals carried many stories regarding irrigation works being installed in the Salinas Valley in 1877 and 1878 as expedients to combat drought. Although Abbott & Boswell posted a notice of their intent to divert water from San Lorenzo Creek on December 26, 1877, we have been unable through historic research to find any evidence that this filing was followed by actual construction of any irrigation works on San Lorenzo Creek by Abbott or Boswell.

My research to date suggests that this water claim may not have been developed and therefore would not support any existing uses.


Point of Diversion: East side of the Salinas River in the SW1/4 Section 11, T23S/ R10E, near Sargent.

Purpose: Irrigation, agricultural, and domestic uses, and stock watering.

Place of Use: San Bernardo Rancho

Method of Conveyance: Ditch or flume 20’ wide and 5’ deep.

Amount Claimed: 50,000 inches under a 4 inch pressure (1,000 cfs)

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9 San Lorenzo Rancho “Maps & Grants” Vol. 1 p. 32.
10 Abbott returned to the Salinas Valley in the mid-1890s, but with the discovery of gold at Klondike, Alaska he joined the gold rush to that region.
Historical Data: Rancho San Bernardo contained 13,346 acres and was finally patented to claimant Mariano Soberantez in 1874, although by this time the rancho had changed hands several times. It was the southernmost Mexican Rancho in the Salinas Valley in Monterey County and was located on the west side of the Salinas River between modern day San Lucas and San Ardo. In January 1884 Meyer Brandenstein, and others, incorporated the San Bernardo and Salinas Valley Canal and Irrigation Company for the purpose of developing the water rights described in the above notice of appropriation.\(^{12}\)

The SB&SVC&ICo. built out its irrigation system between 1884 and 1888. The company diverted water from the Salinas River in Section 10, T23S, R10E and conveyed water through a main canal 6 miles long, with another 8 to 10 miles of lateral ditches. The system watered lands on the San Bernardo Rancho southeast of San Ardo. The company began providing water on a commercial basis by 1890; however, grain farmers in the region were reluctant to contract for water and the company failed. According to Homer Hamlin, a hydraulic engineer of the U. S. Geological Survey who conducted an extensive field investigation of irrigation works in the Salinas Valley from March through August 1901, the SB&SVC&ICo canal system had been abandoned by the time the results of his investigation were published. The source of this information was Meyer Brandenstein, himself.\(^{13}\) No subsequent notices of appropriation were filed for this water right. The canal company was a commercial failure; its corporate charter was suspended on November 30, 1913.\(^{14}\)

According to reliable authority, Meyer Brandenstein himself, this canal was abandoned sometime between 1901 and 1904.


Point of Diversion: At a dam located on the main river at the junction of the Arroyo Seco River and its north fork.

Purpose: Irrigation, agriculture, domestic purposes, and watering stock.

Place of Use: Rancho Arroyo Seco on lands owned by Charles J. Romie.

Method of Conveyance: From the point of diversion following the natural channel of the south fork to a dam across the channel, thence conducted in a ditch northeasterly on a grade of 2 feet per mile until it reached a bluff, thence northerly to the lands of Francisco Sanjuro over land owned by Charles Romie on the Arroyo Seco Rancho. The ditch was already in use at the time of posting notice. It measured 7' at top, 5' at bottom, and was 2.5' deep.

Amount Claimed: 10,000 inches under a four inch pressure (200 cfs)

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\(^{12}\) Articles of Incorporation: San Bernardo and Salinas Valley Canal and Irrigation Company. Records of the Secretary of State, California State Archives.


\(^{14}\) Articles of Incorporation: San Bernardo and Salinas Valley Canal and Irrigation Company. Records of the Secretary of State, California State Archives.
Historical Data: Charles Romie acquired 964.55 acres of land on the Arroyo Seco Rancho from Francisco Sanjuro on August 22, 1877. The ditch described in the notice of appropriation was constructed, but later abandoned. In 1896 C. S. Abbott & A. L. Burbank filed at the same point of diversion noting their intent to utilize portions of the ditch abandoned by C. J. Romie and others.

While this water claim was abandoned, portions of the irrigation system built by Armstrong, Brown and Romie were later used by different parties who posted a new notice of appropriation in 1896. (see Claim No. 12)


Point of Diversion: On the N 1/2 of the SW 1/4, Section 36, T19S R4E
Purpose: Irrigation, domestic use, watering stock, for agricultural purposes, for furnishing motive power, and other beneficial and useful purposes.
Place of Use: E 1/2 of NE 1/4, SW 1/4 of NE 1/4, and NW 1/4 of SE 1/4, Section 32, T19S/R5E.
Method of Conveyance: A two mile long ditch 20” deep and 50” wide at the bottom and with flumes the same size and a dam at the point of diversion.
Amount Claimed: 1,000 inches under a four inch pressure (20 cfs)
Historical Data: This water filing appears to support a claim for irrigating acreage in Arroyo Seco Valley, near the mouth of Horse Run and Woodtick canyons. This places the diversion and place of use at least 15 miles up the Arroyo Seco Canyon from Salinas Valley.

A. J. Coelho in his typescript on the Arroyo Seco writes that very little river water in the canyon was used for irrigation over the years because of its poor quality:

In the Arroyo Seco canyon itself only a few farms have utilized the river for irrigation purposes. Among these are the Ivy Jorgenson, Frank Gruver and Kuchta ranches where irrigated pastures and some row crops have been grown. Currently, however, the only sizable irrigation project is that of Wiley Farms on land formerly owned by Sumner Gould and on McKenzie Ranch. Undependability of the water supply in the river during summer months, as well as the inferior quality of the water supply at certain times, have served as an impediment to extensive irrigation.

Without proof of a change in diversion and point of use, this water right does not support any claim to pre-1914 water rights in Zones 2 and 2A of the Monterey County Water Agency.

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Point of Diversion: At a dam, of a temporary or permanent nature, as needed, on the Soledad Rancho on the Southeast line of Lot 3, being near the junction of the Arroyo Seco and the Salinas River.

Purpose: Irrigation.

Place of Use: On Lot 3 of Rancho Ex-Mission Soledad and adjacent lands.

Method of Conveyance: By a ditch 8' wide on bottom and of sufficient depth to carry 60 cfs, and smaller laterals to distribute water over the lower parts of Lot 3. Pumping plants will elevate water to the higher lands of Lot 3 and by means of ditches, flumes and pipes, as required, will be conveyed to all parts of Lot 3 and the lands adjoining to the north and south. The lateral ditches were to be 3' deep and 5' wide and about 5 miles in length.

Amount Claimed: 3,000 inches under a four inch pressure (60 cfs).

Historical Data: On July 18, 1895, B. F. Gould and his associates purchased a portion of the Ex-mission ranch on the west side of the Salinas River about two miles from the town of Soledad. The Gould ranch consisted of 1,695 acres, of which more than 1,000 acres were on bottom lands irrigable from the river. These lands were used for raising grain, fruit and vegetables. Some 300-400 acres were sloping mesa land.

The Gould irrigation system pumped water from the bed of the Salinas River. The canal tapped the Salinas River and took water a distance of about one mile where it was conducted into a lagoon in an old channel of the river bed. This lagoon served as a natural reservoir for the irrigating plant. An engine house was constructed and a pumping plant installed at a cost of $15,000. Gould’s system used a rotary pump with a 8,000 to 10,000 gpm capacity to lift water some 30 feet into the canal to irrigate land on the west side of the Salinas River. According to some contemporary reports, the amount of water pumped was more than sufficient to serve Gould’s ex-mission lands and would be used to irrigated other contiguous tracts, such as the land of M. G. Soberantes, Mr. Conner’s estate, and Abel Soberantes. Gould’s pumping plant operated through the irrigation seasons of 1897 and 1898. Charles Marx, who conducted a field examination of Gould’s irrigation system in 1900, noted that Gould’s 20-inch Krogh centrifugal pump had a capacity of 10,000 gpm and was flood irrigating 650 acres to a depth of 1 foot over 70 days of operation.

Gould’s water right from the Salinas River and Arroyo Seco Creek for use on Lot 3 and adjoining lands was conveyed February 28, 1903 to the Soledad Land and Water Company. This company had been incorporated in May 24, 1899 with a five member board of trustees that included B. F. Gould; it had an interlocking directorate with the Salinas Valley Water Company. The corporation, capitalized at $30,000, was formed “to buy and sell and hold land; construct, own, and operate pumping plants and locate and own water rights; buy and sell water rights; supply

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18 Lot 3 as shown on V. T. McCray’s September 1895 Map of the Subdivision of Ex-Mission Soledad Ranch.
19 Salinas Weekly Index, February 13 and 20, 1896.
20 Salinas Weekly Index, May 6 and 13, 1897 and April 21, 1898.
22 Monterey County Recorder, Deeds 73: 214-216.
water and sell the same for irrigation; buy, sell and raise cattle and horses; conduct farming and
dairy businesses; and do all things necessary to carry on the foregoing business. 23

In 1910 the capital stock of the company was diminished to $18,600 and the company amended
its articles of incorporation declaring itself a as "private corporation and not a public water
company, for private use and not for public use." 24 Thus, the company did not come under
regulation of the Railroad Commission (predecessor of the PUC) when it was established in 1911.
The Soledad Land & Water Company was dissolved on December 14, 1939. The assets of the
corporation were distributed among its remaining shareholders according to their respective
rights. 25

8. E. E. Hall, Arroyo Seco, April 28, 1896 (A: 122)

Point of Diversion: Arroyo Seco, at the center of Section 16, T 19S/ R6E.
Purpose: Irrigation, domestic use, water stock, for agricultural purposes, for furnishing water
power, and other beneficial uses.
Place of Use: Arroyo Seco Ranch, the Posa de Los Ositos Ranch, Los Coches Ranch, and the
town of King City.
Method of Conveyance: A dam at the place of diversion, with a wooden flume and iron pipe of
sufficient size to carry all of the water flowing in the creek, and a canal 20' wide at the bottom, 5'
deep with laterals of sufficient size to irrigate the irrigable lands, and an iron or wooden pipe to
the town of King City.
Amount Claimed: 10,000 inches under a four inch pressure (200 cfs).
Historical Data: The point of diversion described in this notice of appropriation suggests that
this filing was in support of what Hamlin in 1904 named "SVWCo. Arroyo Seco No. 2." If the
place of use was to be on both the Los Ositos and the Los Coches then the canal would have
needed two branches because these two ranchos are located south and north of the Arroyo Seco,
respectively. The south branch was constructed by 1900, and although it was originally designed
to run all the way to King City, it only extended to the Arroyo Seco / Los Ositos boundary line.
The SVWCo. also had a north branch ditch by 1900, shown as "SVWCo. No. 1" on Hamlin's
map, but its point of diversion was well downstream of the one described in this notice of
appropriation. The canal ran through the Arroyo Seco Rancho and stopped abruptly at the
boundary line between Los Coches and Arroyo Seco Rancho.

Canal No. 1 was 35' wide at the top, 25' wide at the bottom, and was 5' deep. It diverted flood
waters from the Arroyo Seco at the south line of Lot 1 of Rancho Arroyo Seco. In 1900 the
canal was reported as not irrigating any land; however, by about 1904, 300 acres on the north half
of the rancho were irrigated from this ditch. Canal No. 2, measuring 30' at the top, 20' at the
bottom, and 5' deep with a grade of 6” per mile, irrigated some 2,600 acres on the south half of

23 Articles of Incorporation: Soledad Land and Water Company. Records of the Secretary of State, California
State Archives.
24 Amended Articles of Incorporation, May 27, 1910.
25 Articles of Incorporation.
In 1897 the company purchased some 3,000 acres of the Arroyo Seco Ranch from the Francisco Sanjurjo estate and built the SVWCo. Canal No. 2 to irrigate it. The company planned to subdivide the land into small tracts of 40 to 80 acres and sell them as family farm units at $40 per acre, guaranteeing water to irrigate every acre. Seven miles of ditch were completed by the spring of 1898 and water was capable of being delivered to some lands by that spring.

On January 18, 1897 E. E. Hall and W. K. Brown transferred all their right, title and interest in this water right and rights of way obtained for the ditch to the Salinas Valley Water Company. After owning the canal and water rights for only about five years, on April 28, 1902 the Salinas Valley Water Company sold this water right to the Arroyo Seco Improvement Company. The Arroyo Seco Company, in turn, transferred the water right to the Clark Colony Company on May 31, 1905.


Point of Diversion: SW 1/4 Section 19, T19S/ R6E, on the northern side of Arroyo Seco Creek on land owned by Charles J. Romie.
Purpose: Irrigation, stock, and domestic purposes.
Place of Use: On lands on the Arroyo Seco Ranch owned by Romie and others in T19S/ R6E.
Method of Conveyance: Open ditch and flume taking water in a northeasterly direction down along the bank of the Arroyo Seco across Sections 19, 20, 21, 16, and 15 in T19S/ R6E over land belonging to Romie, crossing the Arroyo Seco to the south side and following along the creek bank to farming lands of Romie and others on Arroyo Seco Ranch.
Amount Claimed: 3,500 inches under a four inch head (70 cfs).

Historical Data: The Salinas Weekly Index reported that C. S. Abbott had organized a company to provide irrigation water to the lower Arroyo Seco Ranch in June of 1896. According to the newspaper, Abbott had leased, with an option to purchase, the Romie Ranch at the mouth of the Arroyo Seco and running up into the mountains along the creek some five miles. The canal system would divert water some three miles above the Romie Ranch (4.5 miles above the Espinosa Ranch on Three Mile Flat) and would command some 1,200 irrigable acres on the Romie Ranch. Abbott planned to serve other water users as well. Ultimately, this water company proposed to irrigate some 25,000 acres from Three Mile Flat north to Soledad bridge. Abbott's proposed diversion required him to construct one expensive section above his ranch where the ditch would run along a very steep bank and into a tunnel about 40 feet long.

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27 Salinas Index, March 24, 1898.
28 Monterey County Recorder, Deeds 50: 264-266.
29 Monterey County Recorder, Deeds 70: 228-230.
30 Monterey County Recorder, Deeds 87: 122.
31 Salinas Weekly Index, June 18, 1896.
C. S. Abbott left the Salinas Valley, virtually penniless in the spring of 1898, headed for Cook's Inlet and the Klondike, to seek a new fortune in the gold fields of Alaska. No evidence has yet been found in the historic record to indicate that Abbott ever built this proposed irrigation system. He does not mention it among his business ventures in the Salinas Valley in his autobiography written in 1917. The ditch does not appear on Hamlin's 1904 map of the irrigated lands and canals in the Salinas Valley.

This water claim does not appear to have been developed and therefore would not support any existing uses.


Point of Diversion: In the bottom of an old slough, on the east bank of the Salinas River on the line between the San Bernabe and San Benito Ranchos on land belonging to Mrs. Theresa Johnson. This point of diversion is about 6.5 miles south of King City.

Purpose: Irrigation.

Place of Use: On lands located below the canal in Salinas Valley.

Method of Conveyance: By means of a canal cut to the bottom of the river at the point of diversion, the ditch being 30’ on bottom, 40’ on top, and 5’ deep. The canal was to run in a generally northwesterly direction down the Salinas Valley.

Amount Claimed: 50,000 inches under a four inch pressure (1,000 cfs)

Historical Data: The Salinas Valley Water Company was incorporated in December 1896 for the purposes of buying selling, locating, developing and acquiring water rights and land; conveying water by ditches, flumes and pipes for irrigation, power, manufacturing, municipal, and domestic uses; and for constructing dams and reservoirs for impounding and storing water. The trustees of the company consisted of King City residents, William K. Brown, E. E. Hall, and William A. Winn; Bradley V. Sargent of Salinas; P. F. Brown and G. W. McConnell of Hollister; and J. E. Hartenbower of Tonica, Illinois. The company had a grandiose plan to acquire water rights and build a comprehensive irrigation system to service virtually the entire Salinas Valley from King City to Monterey Bay. The company's projected Main Canal which would have taken water from the Arroyo Seco and the Salinas River above Soledad was never completed. In fact, only about 11 miles of upper Salinas River canal was ever built.

On January 18, 1897 E. E. Hall and W. K. Brown transferred all their right, title and interest in this Salinas River water right, together with all rights of way for the “Salinas Water Company Canal” to the Salinas Valley Water Company.

32 Salinas City Index, March 3, 1898.
33 Abbott, Recollections, 164-168.
34 Johnson's Lands are depicted on “Map of San Benito and San Lucas,” Monterey County Recorder, Records of Survey 1: 35.
35 Articles of Incorporation; Salinas Valley Water Company. Records of the Secretary of State. California State Archives.
36 Salinas Valley Index, March 24, 1898; Hamlin, “Water Resources of the Salinas Valley.”
37 Monterey County Recorder, Deeds 50: 264-266.
This water company was particularly active in the valley from 1897 to 1901, but in the latter year, after only four years in business, it began selling its assets and whatever remaining water rights it possessed. Nearly the entire Salinas Valley was in private ownership and the company had difficulties obtaining rights of way over land it did not own. When it obtained rights of way, they were often given with severe conditions attached regarding reservations and reversion of rights for non-performance.\(^{38}\) In addition, because it owned no storage reservoirs, the company's surface delivery system suffered from severe seasonal shortages.\(^{39}\) It had great difficulties meeting its obligations to major water customers, such as the Spreckels' King City Ranch.\(^{40}\) For most of its water contracts, the company could only promise water deliveries between the months of November or December through March or April. Even so, it failed to meet its obligations. By the end of 1902 the Salinas Valley Water Company had divested itself of its major water works and water rights in the Salinas Valley. The corporation was dissolved on December 14, 1905.\(^{41}\)

In 1901 the Salinas Valley Water Company sold to Alexander F. Morrison of the City and County of San Francisco all of the water works, rights of way, water rights, and all other rights and property of the Salinas River Ditch from its heading on the river six and one-half miles southeasterly of King City to its terminus on the San Lorenzo Rancho. Included by specific reference was this water right. Morrison represented Monterey County Water Company, a corporation organized on September 24, 1901 and almost wholly owned by John D. and Adolph Spreckels. The company operated as a public utility selling, furnishing, and supplying water to "cities, towns, villages, communities, farming neighborhoods and the inhabitants thereof, in the Salinas Valley."\(^{42}\) The Monterey County Water Company discontinued service from its Salinas River "A" Canal in 1915. The Spreckels Sugar Company, owner of the largest acreage served, and the Oxnard Investment Company, the second largest, acquiesced in the granting of the application for abandonment before the California Railroad Commission. Four other "possible customers" were also willing to see the canal permanently abandoned.\(^{43}\) Other parts of the system

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\(^{38}\) For examples, see Theresa Johnson to SVWCo., Monterey County Recorder, Deeds 52:429-432; Spreckels Sugar Company and SVWCo., Monterey County Recorder, Agreements D: 7-12; January 17, 1899, Salinas City Index, January 26, 1899.

\(^{39}\) The surface delivery system of the Salinas Valley Water Company, according to Marx, irrigated a mere 20 acres in 1900. Marx, "Irrigation Problems in the Salinas Valley," 204.

\(^{40}\) At its King City Ranch, Spreckels could not obtain an adequate water supply from the Salinas Valley Water Company, so the sugar company turned to pumping from the river. Spreckels installed an immense centrifugal pump on the river to save its 1000s of acres of sugar beets. Salinas City Index, March 17, 1898 and April 28, 1898.

\(^{41}\) Articles of Incorporation: Salinas Valley Water Company. Records of the Secretary of State, California State Archives; Salinas Index May 26, 1898, August 18, 1898, September 1 and 15, 1898.

\(^{42}\) Articles of Incorporation: Monterey County Water Company. Records of the Secretary of State, California State Archives. Another transaction purports to grant, bargain, sell, convey and grant this same water right (along with many others in the valley) to the Arroyo Seco Improvement Company. Monterey County Recorder, Deeds 70: 228-230. The Arroyo Seco Improvement Company, in turn, deeded this water right to the Clark Colony Water Company on May 31, 1905. Monterey County Recorder, Deeds 87: 122. This apparent inconsistency has not been resolved; however, as noted above, there is evidence that the Monterey County Water Company operated and later abandoned this irrigation system. There is no historic evidence that suggest that the Arroyo Seco Improvement Company, nor the Clark Colony Water Company, ever operated the Salinas Water Company Canal.

were discontinued and abandoned and by 1922 only portions of the company’s system on Arroyo Seco Creek were still in use. As the Railroad Commission noted at that time, the company’s system had no storage and it could only provide reliable irrigation in the winter months. Furthermore, operation and maintenance charges were excessive in relation to the service rendered. Customers sought other sources for their irrigation water.44 (See also Claim Nos. 11, 14 and 22)


**Point of Diversion:** On the north side of the Salinas River, 800 feet downstream from the Soledad Bridge, on Lot 2 of the partition of the San Vicente Rancho.

**Purpose:** Irrigation and domestic purposes.

**Place of Use:** On lands lying below the canal on portions of the San Vicente, Rincon de la Punta del Monte, and Chualar Ranchos.

**Method of Conveyance:** By means of a canal, 30’ wide at bottom, 40’ at top, and 5’ in depth running in a northwesterly direction down the Salinas Valley, a distance of 20 miles on a grade of between 1’ and 5’ per mile.

**Amount Claimed:** 45,000 inches under a four inch pressure (900 cfs).

**Historical Data:** Hurd, a resident of Des Moines, Iowa and Hartenbower, a resident of Tonica, Illinois, were trustees of the Salinas Valley Land and Water Company. The company was well capitalized with stock subscribed in the amount of $2,000,000. Headquartered in King City, this company intended to build “an immense irrigating scheme by which the Salinas Valley may be irrigated.”45 (See also Claim Nos. 10 and 14)

The canal described in this notice of appropriation may have been made in support of one of the alternatives developed by the company for its Main Canal on the Salinas River. The main trunk line never extended below the outfall of the Salinas Water Company Canal on the Salinas River at the San Lorenzo Rancho. Only one canal could be found in the historical literature that vaguely matches the description in this notice of appropriation. The Gonzales Tribune reported on a ditch “breaking ground” in July 1898 under the supervision of W. K. Brown of the Salinas Valley Land and Water Company. This groundbreaking came some two years after the filing of the company’s Salinas River water right under analysis here. It is far more likely that the work described in the Tribune article was in support of a notice of appropriation posted on May 22, 1989 by the Salinas Valley Water Company for 16,000 miners inches (400 cfs) diverted on Lot 5 of the San Vicente Rancho. That canal intended to irrigate land below the point of diversion on the San Vicente Rancho, the Gonzalez Rancho, and other lands lying below the ditch as far north as Castroville, as well as the municipalities of Castroville, Gonzales, Chular, and Salinas. The point of diversion of this canal system was described in contemporary newspaper articles as being near Camphora, which would place it about 2.5 miles northwest of Soledad (i.e., at least two miles downstream from the point of diversion recorded on June 24, 1896)46

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45 *Salinas Weekly Index*, May 27, 1897.

This canal was to be 25’ wide and the Salinas Valley Water Company admitted that the ditch would only be capable of irrigating lands in the winter when water was plentiful in the Salinas River. One-half mile of the ditch was completed in the summer of 1898, but problems with obtaining a right of way over several land owners properties caused the company to cease construction. No other evidence of actual construction on this irrigation ditch has been found.

On September 21, 1901 the Salinas Valley Water Company sold this Salinas River water location made by J. E. Hartenbower and B. D. Hurd to Alexander F. Morrison, a trustee for the Monterey County Water Company. We have not found any evidence to suggest that the Monterey County Water Company completed the work initiated by the Salinas Valley Water Company in 1898. Without evidence of application of water to beneficial use, this claim would not have ripened into a valid water right.


Point of Diversion: At the westerly end of Lot 2 of the Arroyo Seco Rancho, being the same place located by C. J. Romie on September 30, 1886. Purpose: Irrigation, domestic use, stock watering, for agricultural and horticultural purposes and for furnishing water to towns, and for other public purposes deemed proper, and for electric light plants and furnishing power.

Place of Use: On lands in the Arroyo Seco Ranch, the Posa de Los Ositos Rancho, and Los Cochies, and other contiguous lands.

Method of Conveyance: By means of a dam at the point of diversion and a canal along the line of the abandoned ditch constructed by C. J. Romie, and others. The canal was to be 25’ wide on bottom, 6’ deep, with laterals of sufficient size to irrigate the land intended to be irrigated. The notice also claimed the right to store water in reservoirs where needed.

Amount Claimed: 30,000 inches under a four inch pressure (600 cfs), “being all the water in said Arroyo Seco Creek.”

Historic Data: In July 1895, a full year before this notice was posted, A. L. Burbank filed deeds for a right of way for water mains from the Arroyo Seco and its tributaries to supply water for domestic and other purposes at King City, and to be used to generate electricity. As of this time, we do not have any historic evidence that would suggest that the water project contemplated by this filing was ever constructed. This water claim does not appear to have been developed and therefore would not support any existing uses.

47 Salinas City Index, July 14, 1898 and August 18, 1898, September 1, 1898.
49 Lot 2 is depicted on “Map of the South Half of Arroyo Seco Rancho,” Monterey County Recorder, M&G 1: 36.
50 Salinas Weekly Index, July 11, 1895

**Point of Diversion:** On the Salinas River where it enters Lot 4 of the Salinas Rancho on land owned by the Armstrongs.

**Purpose:** Irrigation, agricultural, and horticultural purposes.

**Place of Use:** On lands within the Las Salinas Rancho owned by the Armstrongs, or thereafter acquired by them in that locality; and on other lands in that vicinity for stock watering and agricultural purposes.

**Method of Conveyance:** Pump, flume, pipe, and ditch. Flume 18” wide and 12” deep; ditch 3’ wide at bottom, 4’ wide at top and 2’ deep; pipe 10” in diameter. The claimants claimed the right to change the place of diversion and enlarge their conveyance system.

**Amount Claimed:** 1000 inches under a four inch pressure (20 cfs).

**Historic Data:** The Armstrong Ranch was a 2,260 acre tract named for John G. Armstrong, a New Yorker, who came to the Salinas Valley in 1868 and settled near Blanco, 4 miles west of Salinas. He acquired portions of the Las Salinas Rancho, a Mexican rancho bounded on the east by Rancho Bolsa del Potrero y Moro Cojo, on the west by the Salinas River, on the south by the City Lands of Monterey, and on the north by Rancho Rincon de Las Salinas. The Rancho is located within T14S R2E.

In 1898 John G. Armstrong installed one of the first extensive private systems of irrigation using wells and pumps on his home ranch near Blanco. He sank two 10 inch wells to a depth of 300 feet in the E 1/2 of the SE 1/4 of Sec. 26, T14S/ R2E. The wells were connected to an 8 inch centrifugal pump and the pump driven by a 20 hp gasoline engine. At full capacity the pump could provide a steady stream of water at the rate of 1,800 gpm. The water was used to irrigate Armstrong’s alfalfa filed and that of one of his neighbors. Armstrong also had a 10 inch centrifugal pump in the Salinas River on Lot 5 of his Salinas Rancho that irrigated 70 acres.  

None of Mr. Maloney’s Upper Valley or Forebay Area claims appear to be supported by any water rights associated with Armstrong’s notice of appropriation for diversion and use of water from the Salinas River on Las Salinas Rancho. Instead, Armstrong’s notice of appropriation supports a diversion northwest of Salinas.


**Point of Diversion:** On the east side of Arroyo Seco Creek, where it crossed the division line between Lots 1 and 2 of the Arroyo Seco Rancho, a distance of about six miles southwest of Soledad and about the same distance from Metz Station on the Southern Pacific Railroad.

**Purpose:** Irrigation, domestic, power, and municipal purposes; to store water for all these uses; and to use water for any other useful purpose in the Salinas Valley. The company claimed the right to consolidate other ditches and water systems into “one general means of conveyance and distribution at any part of the said Salinas Valley.”

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51 Guinn 1910: 567; *Salinas City Index*, April 14, 1898; Marx “Irrigation Problems in Salinas Valley,” 201.
Place of Use: On lands owned or leased by the company in the Salinas Valley north of the point of diversion. The company also claimed the right to sell water to owners of land over which the ditch ran or could reach by construction of lateral ditches on the ranches known as the Arroyo Seco, Los Coches, San Vicente, Gonzales, and all other lands lower in altitude than the canal which may be irrigated from it as far north as the town of Castroville. The company also claimed the right to supply the towns of Soledad, Gonzales, Chualar, Salinas and Castroville and other towns and places along the canal line with water for domestic uses, irrigation of gardens, etc., and for municipal purposes.

Method of Conveyance: By means of a diversion dam across the bed of the creek of sufficient height to fill the ditch with 50,000 inches of water. The canal was to be cut down to the level of the creek bed and be 30' wide on the bottom, 40' wide on top, and not less than 5' deep. The general course of the canal was to be northwesterly running a distance of about 46 miles and irrigating lands on both sides of the Salinas Valley.

Amount Claimed: 50,000 inches under a four inch pressure (1,000 cfs).

Historic Data: The water claim was filed by E. E. Hall, president, and W. A. Werin, secretary, of the Salinas Valley Water Company. [see Claim No. 10 for a description of this company]

This Arroyo Seco notice of appropriation was filed in support of the Salinas Valley Water Company’s Arroyo Seco branch of its grand system intended to irrigate the entire Salinas Valley. Although the company built two smaller diversions out of Arroyo Seco Creek to water lands locally on the Arroyo Seco Rancho, no evidence has been found to indicate that the company ever initiated actual construction on the Arroyo Seco branch of its Main Canal.

The Salinas Valley Water Company sold this water right and location to the Arroyo Seco Improvement Company on April 28, 1902. The Arroyo Seco Improvement Company sold the same water right and location to the Clark Colony Water Company on May 31, 1905. (See Claim Nos. 10, 14 and 22) This water claim does not appear to have been developed and therefore would not support any existing uses.

15. Spreckels Sugar Company, Salinas River, August 19, 1898 (A: 156)

Point of Diversion: Pumped from Salinas River at an undefined point.
Purpose: Irrigation.
Place of Use: On the company’s lands on the Soberantes Ranch, being some 1,200.6 acres, part of Lot 1 of the extension of the Soledad Rancho, and on adjoining lands.

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52 Monterey County Recorder, Deeds: 70: 228-230.
Method of Conveyance: Pumping plant and ditches, flumes, and pipes. Ditch, 5' wide on bottom of sufficient depth to admit a head water of four feet. Flume, 5' 5" at bottom and 2' 5" in height. Pipe, 30" diameter.

Amount Claimed: 15,000 inches under a four inch pressure (300 cfs).

Historic Data: In 1898 the Spreckels Sugar Company built a new sugar beet refinery, the largest in the world, at Spreckels, south of and outside the town of Salinas. To insure the plant had an adequate supply of sugar beets, the Spreckels Sugar Company bought up thousands of acres in the Salinas Valley to be used for raising sugar beets. Ranch No. 2 was one of these Spreckels ranches. To grow sugar beets in the valley required irrigation. At first Spreckels relied on obtaining contracted water from various water companies; however, this generally proved inadequate because surface water supplies were unreliable. Spreckels soon turned to pumping water from the river to ditches on the highest portions of the areas to be irrigated and spread the water by check irrigation. In April 1899 Spreckels' surveying corps began laying out the irrigation system on Ranch No. 2, located on the left bank of the Salinas River northwest of the town of Soledad. The pumping plant at Ranch No. 2, known as Soberantes Pumping Plant No. 1 operated at least through 1919.

Generally, the early Spreckels river pumping plants consisted of centrifugal pumps connected to bores or sumps in the river bed. Pump manufacturers greatly improved the efficiency of their equipment in the early decades of the 20th century. Deep wells came into general use in the 1920s and the old Spreckels pumping plants on its ranches were gradually abandoned and replaced with dispersed single wells with deep well pumps. By 1945 five dispersed deep wells served Spreckels Ranch No. 2.

16. I. H. Millard, San Antonio Creek, August 27, 1898 (A: 156)

Point of Diversion: San Antonio Creek at a point about 30' from the northwesterly boundary between Milpitas ranch and the Earl Ranch, owned then by Vanderhurst Sanborn Co.

Purpose: Irrigation, domestic, agricultural, stock watering, and other beneficial purposes.

Place of Use: Lands on the Milpitas Grant, the Ojitos Grant, and other lands to the south and east at a lower elevation than the irrigation ditch.

Method of Conveyance: By means of a wooden headgate and an open canal 25' wide on bottom, 5' deep with laterals of sufficient size to irrigate the lands intended to be irrigated.

Amount Claimed: 10,000 inches under a four inch pressure (200 cfs).

Historic Data: The irrigation system described by this notice of appropriation refers to a system located up in the San Antonio River canyon above the historic town of Jolon. It served grain growers for a short time around the turn of the century on the southern Milpitas Rancho and on the northern part of the Ojitos Rancho on the east side of the San Antonio River. The surface

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56 Salinas City Index, April 6, 1899.
57 Map of Ranch No. 2 of the Spreckels Sugar Company, March 1919.
58 C. L Pioda, “Fifty Years of Sugar Beets,” 5.
water delivery system was later abandoned in favor of wells. The property once served by this irrigation system was incorporated into Fort Hunter-Liggett when that Army base was set aside as a training center for World War II. It remains in federal ownership. Without proof of a change in point of diversion and place of use, this notice of appropriation does not support any appropriative water claims within Zones 2 and 2A of the Monterey County Water Agency.

17. Spreckels Sugar Company, Salinas River, August 19, 1898 (A: 156)

Point of Diversion: On the Salinas River 1,250’ distant along the river from the fence line dividing Lots 6 and 8 of the Spence Tract.
Purpose: Irrigation and all other beneficial uses.
Place of Use: On lands owned or leased by the company on Buena Esperanza Rancho.
Method of Conveyance: From the Salinas River in an open cut 6’ wide and 3’ 6” deep that runs 91’ to a suction pit from where the water was to be pumped into a receiver located 81’ from the suction pit. From the receiver water was delivered through iron pipe 24” in diameter over the company’s lands.
Amount Claimed: 2,000 inches under a four inch pressure (40 cfs).
Historic Data: Rancho Encinal y Buena Esperanza was patented to David Spence in 1862. The Ranch lies on the east side of the Salinas River with its southernmost line being about a mile north of the town of Chualar. The Spreckels Sugar Company acquired a significant portion of this rancho in 1896-97, including the lands of the Spence Estate located north of Spence Station, along the river and the Southern Pacific Railroad tracks. The property became part of Spreckels Ranch No. 1 and was used to grow sugar beets. The pumping plant referred to in the notice of appropriation was located on the left bank of the Salinas River near the southeast corner of Rancho Buena Esperanza at the big hook in the river.

This water filing supports a diversion and use of water in the Pressure Area on lands in the vicinity of Spence Station, north of Chular.


Point of Diversion: 300 yards north of the Somavia dairy house.
Purpose: Irrigation on 100 acres on a portion of Lot N of the Malarin partition of the Guadalupe Rancho.
Place of Use: 100 acres on a portion of Lot N of the Malarin partition of the Guadalupe Rancho (i.e., about 3 miles southwest of the town of Chualar).
Method of Conveyance: To be diverted from the river through a six inch pipe, by means of a pump at a point 300 yards north of the Somavia dairy house.

For the past year and one-half the author has been involved in a project to nominate the remnant pieces of the San Antonio de Padua mission irrigation system to the National Register of Historic Places. This summary of the irrigation practices of the area under the Millard filing is drawn from that research.

Map of Ranch No. 1 of the Spreckels Sugar Company, April 1905.
Amount Claimed: 80 inches under a four inch pressure (1.6 cfs).

Historic Data: The Somavia Dairy was located in Lot N of the Spence partition of Rancho Guadalupe and was riparian to the Salinas River with acreage on both banks. About three miles west of the town of Gonzales and on the west side of the Salinas River there was a school named "Somavia School." The school was located at a central location adjacent the county highway along the western boundary of the Somavia Dairy. The dairy included a total of 1,682 acres by 1905.

Somavia's irrigation system obtained its water supply by pumping directly from the river bed. In 1899 he purchased and installed a 6" Fairbanks-Morse gasoline pumping plant with a vertical centrifugal pump manufactured by Krogh Manufacturing Company of San Francisco. Dozens of these types of pumps of varying sizes from 2.5" to 8" were installed on individual Salinas Valley farms by Ford & Sanborn Company in 1899.

The Somavia Ranch and the point of diversion were located within, and near the southwest corner, of the Pressure Area of the valley.


Point of Diversion: East bank of the Salinas River in Lot 5 of the San Vicente Rancho and on Lot 6 on the north side of the river near the line between Lots 5 and 6.

Purpose: Irrigation, domestic, and other useful purposes. The claimants also claimed the right to store water.

Place of Use: On lands owned, purchased, or leased by the company in the Salinas Valley northwest of the point of diversion. Also on lands owned by others irrigable by the ditch and its laterals. The lands to be water were more particularly described as Lots 6 and 7 of the Rancho San Vicente, and all of the Rancho Rincon de la Punta del Monte and lands adjoining and contiguous thereto reached by the ditch and its laterals.

Method of Conveyance: By means of a dam in and across the bed of the Salinas River of sufficient height to divert enough water to fill the canal. The canal would be dug down to the level of the river bed and run from the dam down the east side of the river. The canal was to be 20' wide on the bottom, 40' wide on top, and 5' deep. Wooden or stone flumes of sufficient capacity to carry 16,000 inches would also be built. The general course of the canal was to be northwesterly with a length of eight to ten miles.

Amount Claimed: 16,000 inches under a four inch pressure (320 cfs).

Historical Data: In March of 1899 Alfred and Mariano Gonzalez began to explore the possibilities of developing the underground waters of their Rancho Rincon de la Puente del Monte which surrounded the present day town of Gonzales. The rancho's western boundary was the Salinas River. The Salinas Index reported that the two men had signed a contract with a firm to

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62 Monterey County Recorder, “Map of Guadalupe Rancho, filed on July 19, 1880.”
64 “Map of the Salinas Valley Beet District No. 4 of the Spreckels Sugar Company,” July 1905.
65 Salinas Weekly Index, March 16, 1899.
bore two 10' wells to a depth of 200.' If the venture was successful, the paper noted that either the Gonzalez's would furnish and erect the pumping plant and sell water to their tenants, or the farmers themselves might invest capital in pumping outfits.66

M. E. Gonzalez made his first filing for a water claim on the Salinas River on May 24, 1899. He made a second filing at the same point of diversion, for the same amount of water, etc. on September 15, 1899.67 The Salinas Index noted that Mr. Gonzalez and his associates intended not only to irrigate their own lands, but to furnish water for irrigating the lands of other ranches in the valley and to furnish water to the towns of Gonzales and Chualar for municipal purposes. According to the newspaper, the canal would be 35' wide on the bottom, 45' on top, and extend some 15 to 20 miles long and run through the San Vicente, Rincon de la Puente del Montes, Zanjones Chualar, Buena Esperanza, Alisal, Sausal, El Alisal, and Natividad ranches.68 Other evidence suggests that the length and size of the canal were overstated in the local newspaper. By actual measurement ca. 1901, Charles D. Marx determined the Gonzales Water Company ditches to be 30' on bottom, 40' on top, and 6' deep at the mouth of the canal, but the conveyance system dropped thereafter to 25' on bottom, 35' on top, and 6' deep with a fall of 1 to 5,000.69

The Gonzalez Water Company was incorporated under the laws of California on June 4, 1899 with a capital stock of $21,000. The notice of appropriation for this claim was recorded by Alfred Wideman, president, and John C. Lazier, secretary of the Gonzales Water Co. The other officers and subscribers of the company included Alfred Gonzalez and Mariano E. Gonzalez. The stated purposes of incorporation were to divert water by means of a dam across the Salinas River and take 16,000 inches, or more, of water from the east side of the river on the Rancho San Vicente and run it in a canal, ditch or flume northwesterly over the lands of the rancho, and upon the lands of the Rincon de la Punta del Monte, a distance of 8 miles. The water was to be sold for irrigation, domestic and other purposes on the various lands it passed through. The company also claimed as a purpose to maintain reservoirs and store water in connection with the ditch operation.70

The Gonzalez Water Company's canal was constructed in 1899. In 1901 Hamlin observed the canal in the field and noted that it was 7.5 miles long and diverted water from the Salinas River by means of a wing dam of sand and brush located about 4 miles south of the town of Gonzales. The canal passed through Rincon de la Puente del Monte and terminated at its boundary line with the Zanjones Rancho, south of Gonzales. Hamlin's estimate of the carrying capacity of the canal varied from the stated size in the articles of incorporation and in local newspapers. He reported that the canal was 16' wide on the bottom, 32' wide on top, and was built on a grade of 1' per mile. By 1901-1904, some 2,700 acres were irrigated from this canal.71

66 Salinas Weekly Index, March 16, 1899.
68 Salinas Weekly Index, June 1, 1899.
70 Articles of Incorporation: Gonzales Water Company. Records of the Secretary of State, California State Archives.
The Gonzales Water Company's corporate charter was suspended in June 1930. All of the lands serviced by this canal were located on the east side of the Salinas River in the lower Forebay Area and upper Pressure Area.

20. W. A. Gordon, Salinas River, October 21, 1899 (A: 181)

Point of Diversion: From headgates on the Salinas River south and east of the Home ranch buildings of the Dunphy estate [on the Posa de Los Ositos], thence running in a northerly direction to and across the lands owned by Mrs. J. Espinosa.

Purpose: Irrigation.

Place of Use: On lands to be purchased or leased by Gordon north of his point of diversion. Also to sell water to land irrigable from the ditch on the Ranches called Posa de Los Ositos, Arroyo Seco, Los Coches, San Vicente, and other lands irrigable from the ditch and its laterals.

Method of Conveyance: By means of piles driven in the stream with headgates sufficient to divert 5,000 inches in the canal cut to the depth of the bed of the river. The canal, measuring 20' on the bottom and 30' on the top, would run down the west side of the Salinas River in a generally northwesterly and southeasterly course a distance of 20 miles.

Amount Claimed: 5,000 inches (100 cfs).

Historical Data: William Dunphy was the owner of 16,939 acres in the south half of the La Posa de Los Ositos land grant, located north of King City on the opposite side of the Salinas River from the San Lorenzo Rancho. When the old Dunphy Ranch property was finally irrigated it appears that it was accomplished through sinking wells, rather than by surface diversion of the Salinas River, as described in the 1899 notice of appropriation. This development occurred after 1914, or more precisely in and after 1917, when the Salinas Land Company acquired the property.

In 1917 A. L. Hobson, John Lagomarsino, and Charles Teague, all of Ventura County, purchased the Dunphy Ranch. In all, the property at this time contained about 8,000 acres of valley land and another 5,000 acres of range land. Prior to the purchase by Hobson and his associates the land had been used to grow grain and feed stock. As Teague himself noted in his autobiography, Fifty Years a Rancher, "there were practically no commercial plantings of beans, walnuts, almonds, or apricots in the King City area at that time." Only a small colony near Greenfield had begun growing fruit and nuts. Teague continued:

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72 Articles of Incorporation: Gonzales Water Company. Records of the Secretary of State, California State Archives
75 Pacific Rural Press, November 24, 1888 and June 15, 1889.
We purchased the property with the intention of developing water and putting such land as we could under irrigation. A corporation was formed known as the Salinas Land Company [headquartered at the City of San Buenaventura in Ventura County], of which Mr. A. L. Hobson was president and manager and I was vice-president. We began sinking wells along the Salinas River and found, as we had anticipated, that ample water could be obtained. We were just getting well under way with this development when Mr. Carlyle Thorpe, who had been general manager of the California Walnut Growers Association for many years, became interested in the opportunity to raise fruit in that area and proposed that he and his friends form a corporation, purchase some of the land from us, and set it out to orchards. We agreed to sell the land at a reasonable price and to take stock in the proposed orchard company for it. The California Orchard Company was then formed and took over 1900 acres of the valley land. I was elected president of the new company, while Mr. A. L. Hobson became its vice-president and Mr. Thorpe its general manager.  

The Salinas Land Company was incorporated on December 22, 1917. The company sunk 16 wells that produced approximately 3,850 miner's inches of water (77 cfs). After the necessary pumps and distribution lines were completed, the California Orchard Company planted some 1,526 acres to fruit trees. The balance of the bottom land was put up for sale as bean property which was the staple of agriculture in Ventura County where Teague and his associates had farmed previously. According to Teague, 4,125 acres were sold and the bean crops were so successful that the company decided to take the balance of the bottom land (3,067 acres) off the market and lease it on a share basis. In 1925 the Salinas Land Company had approximately 5,000 acres planted with beans and peas. The land was irrigated with one of the “most modern electrical irrigation systems to be found in the state,” according to the Journal of Electricity. The irrigation system had 12 pumps ranging in size from 12 to 16 inches, connected to one 8 inch booster pump. All the pumps were of the deep-well turbine type.

We do not have any historical evidence suggesting that the surface diversion and gravity canal irrigation system described in the notice of appropriation was ever constructed.


Point of Diversion: On Lot 3 of the Arroyo Seco Rancho about 100’ north from a sandstone outcropping on the bluff on the north side of the stream.  
Purpose: Irrigation

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77 Articles of Incorporation: Salinas Land Company. Records of the Secretary of State, California State Archives; Teague, Fifty Years a Rancher, 135-140.
78 Journal of Electricity, October 1, 1925, 55: 7.
Place of Use: On lands on the Romie Colony, near Soledad, and on other lands located between the point of diversion and the Romie Colony and on any lands located beyond the colony that can be reached and irrigated from the canal and its laterals.

Method of Conveyance: A dam built across the whole or a part of the Arroyo Seco, and hence by a canal 20' wide on the bottom and 6' deep with flumes where needed.

Amount Claimed: 50,000 inches under a four inch pressure (1,000 cfs).

Historical Data: William P. Wood, the person who filed the notice of appropriation, was a Staff-Captain in the Salvation Army and was in charge over the overall site preparation work for the Romie Colony.

During the economic depression of the late 1890s, the Romie tract became the site of an experimental "sugar beet colony enterprise" designed to resettle unemployed, but able bodied, residents of San Francisco and their families. The colony, named after the former landowner who befriended the colony, was situated only four miles from the Southern Pacific rail line at Soledad, within easy range of Spreckels sugar beet factory at Watsonville and the new sugar refinery outside Salinas. The project was led by Major Winchell of the Salvation Army and C. W. Haskell, a surveyor, in cooperation with the San Francisco Call, San Francisco Chamber of Commerce, and Claus Spreckels.80

The community became known as "Fort Romie," name for Charles T. Romie who sold a 520 acre wedge shaped parcel of his immense tract on the Arroyo Seco and Salinas rivers to the colony.81 The land was surveyed and subdivided into 5 to 20 acre lots in the fall of 1897. At the center of the tract was a townsite with a two and one-half story cooperative store. Each colonist agreed to rent a specified acreage at an agreed upon annual fee to be paid in cash or labor. After 10 years on the land, a colonist's purchase was completed and he could receive title to his land. During this ten year lease period, each colonist committed himself to take irrigation water from the colony and after the purchase option was exercised at prescribed rates ($1.50 an acre in winter months and $2.00 in summer). Putting in an irrigation system was one of the first priorities of the colony, noted the San Francisco Call:

At the junction of the Arroyo Seco and Salinas Rovers abundant water has been tapped at a depth of eleven feet, a half mile from town. Here an excavation 40 x 40 feet will be made for a reservoir, with a centrifugal pump and a 90 hp engine. The colony will be supplied with a water flow at the rate of from 6,000 to 9,000 gpm.82

The colony did not rely on a surface diversion system from Arroyo Seco as described in the notice of appropriation. Historian Clark Spence, in the book The Salvation Army Farm Colonies, writes:

As early as July [1898], Major Winchell was making arrangements with a contractor for "a first-class water plant and irrigation system" which was said to cost $9,000 and pump 9000 gpm; both were inflated figures apparently. In April, with population increasing, the Army was still

81 Salinas Index, October 14, 1897.
82 San Francisco Call, January 6, 1898.
“rushing day and night” to get the irrigation plant in operation. There were setbacks when the artesian well proved too shallow and when the discharge pipe from the pump collapsed due to a cave-in. By June, two pumps were at work. A hundred and fifty acres had been planted in beans, potatoes, and sugar beets, which was less than half what had been anticipated, and the faulty irrigation system could only produce about one-third the amount of water needed. Romie supervised the dropping of more artesian wells, capable of watering three or four acres a day, but crops were late and this was a drought year. The mean annual rainfall of Soledad over 27 years was 8.82 inches; the last few years of the of the 1890s had been dry and in unirrigated parts of the valley it was reported in 1901 that [there were] “practically no crops last seven years.”

By 1900, the main pumping plant, a 16-inch centrifugal pump powered by an 80 hp Frick wood-burning engine capable of throwing 5,000 gpm into a high trestle flume, had been erected on the banks of the Salinas River, not the Arroyo Seco. This provided enough water to irrigate 8 acres in 12 hours, but this was inadequate to irrigate all the properties. The pump had the capacity to produce more water, but the limiting factors were the size of the flume and the adequacy of the water supply. Continuing drought hampered crop production, all but one of the original colonists were gone within three years. Marx also noted in 1900 that the Salvation Army Colony on Lot 4 of the Soledad Rancho obtained its water from the Salinas River. Water was pumped by a 16 inch wood-burning centrifugal pump raising 8,000 gpm. Some 300 acres were irrigated over a three month irrigation period from 2” to 12” deep. The irrigation system was run at about 5,000 gpm because that is what the flume could handle.

In 1902 the Fort Romie Colony was deeded certain water rights of the Monterey County Water Company at or near Fort Romie in order to supplement the water supply from its own pumping plants. The Salvation Army suggested that the colonists themselves take over the irrigation system on the colony. In October 1902 an agreement was reached and the Fort Romie Water Company was incorporated. The Salvation Army conveyed the water system to the Fort Romie Water Company for $6,750, a figure based upon one $15.00 share of stock for each irrigable acre. Thus each colonist who settled a 20 acre lot would have to pay $300 before he could obtain title to the land. Only landowners could purchase stock. If a colonist disposed of his property to a third party, the shares transferred; if his right to the land reverted to the Salvation Army so did the water company shares; in other words, the ownership and control of the irrigation system was tied to the soil.

Most of the settlers achieved the goal of owning their own land between 1910 and 1917. The Fort Romie Water Company is still in operation.

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83 Spence, Salvation Army Farm Colonies, 30.
84 War Cry (SF), July 7; Aug. 11 and 25, 1900; Spence, Salvation Army Farm Colonies, 33-34.
86 Spence, Salvation Army Farm Colonies, 33-34.

**Point of Diversion:** On or near the west bank of the creek, just below the stone dam of the Clark Colony Water Company, which was situated on subdivision C of lot 398 of the lands of the company.\(^{87}\)

**Purpose:** Irrigation, stock watering, and mechanical purposes.

**Place of Use:** In the southeastern one-half of Rancho Arroyo Seco, according to the plat surveyed by H. B. Fisher.\(^{88}\)

**Method of Conveyance:** Diversion of the surface flow and pumping of the underflow. Water was to be conveyed by into the canal of the Clark Colony Water Company and taken through the canal and laterals to the company’s lands and to land owned by other parties.

**Amount Claimed:** The surface and underflow of the creek to the extent of 2,000 inches under a four inch pressure (40 cfs).

**Historic Data:** The Clark Colony Water Company was formed on May 8, 1905 for the purpose of purchasing all physical and legal assets of the Arroyo Seco Improvement Company, including water rights to the Arroyo Seco River, that could be used to irrigate the company’s 4,000 acres in the southeastern half of Rancho Arroyo Seco around Clark City, now known as Greenfield. The company was capitalized at $100,000 which was the purchase price of the Arroyo Seco Company’s assets.\(^{89}\) Clark Colony Water Company acquired Mr. Maloney’s Claim Nos. 8, 10, and 14 from the Arroyo Seco Company.\(^{90}\)

The Clark Colony was also known as the California Home Extension Colony No. 1. The main canal and some of its laterals were built by the Clark Colony Water Company before the first colonists arrived. Upon their arrival, the water company issued one share of stock per acre purchased with the deed to the land. Thus an early date, ownership of the water company passed from the hands of the original promoters to the water users themselves. Subsequent work on the irrigation system was done by assessing the land owners. Up to 1920 assessments were made for such items as concreting portions of the main canal and some laterals, installation of pipelines, and construction of a dam in Arroyo Seco.

The diversion dam for the Clark Colony water system was located on the Arroyo Seco about 6.5 miles west of Greenfield. The area irrigated by the Clark Colony Water Company system in 1920 amounted to 3,700 acres, of which 2,000 was alfalfa, 250-300 acres were orchard, and the balance in annual crops, primarily barley and beans. In the average year the surface water supply system was not sufficient to irrigate crops beyond June 1st. The water delivery system contained 8 laterals, each with a capacity of 300 miners inches (6 cfs), but the laterals were rarely full. Combined, they carried on the average about 1,800 to 2,000 miners inches (36-40 cfs). In 1920,

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\(^{87}\) C. W. Tash, “Map showing subdivision Lot 398, Clark Colony, October 1905,” Monterey County Recorder, Maps of Cities & Towns 1: 64.


\(^{89}\) Articles of Incorporation: Clark Colony Water Company. Records of the Secretary of State, California State Archives.

\(^{90}\) Arroyo Seco Improvement Co. to Clark Colony Company, Monterey County Recorder, Deeds 87: 121-125.
the colony considered forming an irrigation district comprised of its own land and some 16,000 surrounding acres. Frank Adams, the consulting engineer for the colony, advised the Clark Colony to consider district formation because the "irregularity of the supply from Arroyo Seco makes stable farming impossible." 91

The Clark Colony Water Company never tried to develop the grand surface gravity canal irrigation system described in the three paper water rights, designated herein as Claim Nos. 8, 10, and 14, that it acquired from the Arroyo Seco Improvement Company. Instead, the water company focused on improving its existing water supply system from the Arroyo Seco. According to its consulting engineer, the Clark Colony Water Company's appropriative rights were generally recognized as first on the creek and gave the company the right to divert all of the surface water in the Arroyo Seco during low water periods. The surface water right with the second priority was owned by the Spreckels Sugar Company. 92

By the 1940s, the Clark Water Company surface diversion system was an anomaly in the Salinas Valley. According to contemporary sources, it was the only major direct diversion system still in existence. Even so, gravity diversion did not remain the sole source of irrigation water for the colony, because the Arroyo Seco went dry in the late spring or early summer in average years; therefore, full agricultural development of the tract required supplemental groundwater supplies. At first, individuals purchased pumps and installed them to provide their own lands. Later, the water company obtained pumped water from the wells of three mutual water companies: Union Water Company, West Side Water Company, and Greenfield Water Company. Water was delivered through the existing Colony distribution system. 93

The Clark Colony Water Company continued to deliver water for irrigation at least into the 1960s and still may do so. But farmers began to rely more on water from deep wells and the service area of the water company was reduced to about 1800 acres by the 1960s. 94

Section 3: Water Rights Based Upon Irrigation at the Three Missions

Mr. Maloney has also suggested that large ancient water rights might be attached to three missions that would support claims to all of the valley's water for his clients in the South County. First, it is important to note that agriculture as practiced by the missions during the Spanish and Mexican periods was for all practical purposes subsistence agriculture aimed to feed the padres, their neophyte laborers, and perhaps soldiers at nearby presidios when needed. By modern day standards the amount of water used and the acres cultivated were very small indeed, even at the

height of agricultural production in the early decades of the 19th century. During the Spanish period, trade with the outside world was proscribed. With the secularization of the missions under Mexico in 1833, and their subsequent decay, the small irrigation works at the missions were poorly maintained and in most cases abandoned. Under Mexican rule, California became a cattle raising economy and former mission lands fell into private ownership, or were administered by civilian appointees of the Mexican government. Mission lands were used to graze livestock that were butchered and sold in the hide and tallow trade. Ultimately, some missions were returned to the Catholic church as a result of legal proceedings before the U. S. Land Commission. In most cases, the commission returned to the church the area occupied by the church buildings, plus the relatively small area of permanent gardens, orchards, and crop lands surrounding the church.

Mission San Antonio de Padua, located near the head of San Antonio Valley, was given a patent for 33.19 acres; Mission San Miguel Arcangel received 33.97 acres; and Mission la Soledad was allocated 34.47 acres. Only one of these three missions was awarded a patent to, or ever controlled land in Spanish and Mexican times, within the hydrologic regions known as the Upper Valley Area, the Forebay Area, and the Arroyo Seco Cone Area. That mission was the one at Soledad.

I declare under penalty of perjury that the foregoing is true and correct, to the best of my knowledge.

Signed by: [Signature] Dated: March 21, 1997
July 29, 1996

Richard Satkowski
Post Office Box 2000
State Water Resources Control Board
Sacramento, California 95812-2000

Dear Rich,

Re: Salinas River Investigation

Enclosed please find the following:

A.) Our preliminary research on Pre-1914 Water Filings in the Salinas Valley. (Filings)

B) Copies of the claims. (Claims)

C) Water usage data of the Agency (Data)

The Filings appear to be pre-1914 rights where we can trace continuous usage of the water on the lands covered by the claims to the present. We fully expect the nature and the extent of the claim to change as we develop more information about each claim. There are at least another 50 Filings in the Salinas Valley which at this stage appear to be of limited value. We are continuing to research the Filings.

The Claims were taken from the documents in the County Clerk's office.

It is our understanding this Data is under review with Montgomery Watson and the Agency.

If you have any question, please feel free to call.

I am
Sincerely,

PATRICK J. MALONEY
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