State of California
Secretary of State

I, DEBRA BOWEN, Secretary of State of the State of California, hereby certify:

That the attached transcript of 195 page(s) is a full, true and correct copy of the original record in the custody of this office.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of

November 28, 2012

Debra Bowen

DEBRA BOWEN
Secretary of State

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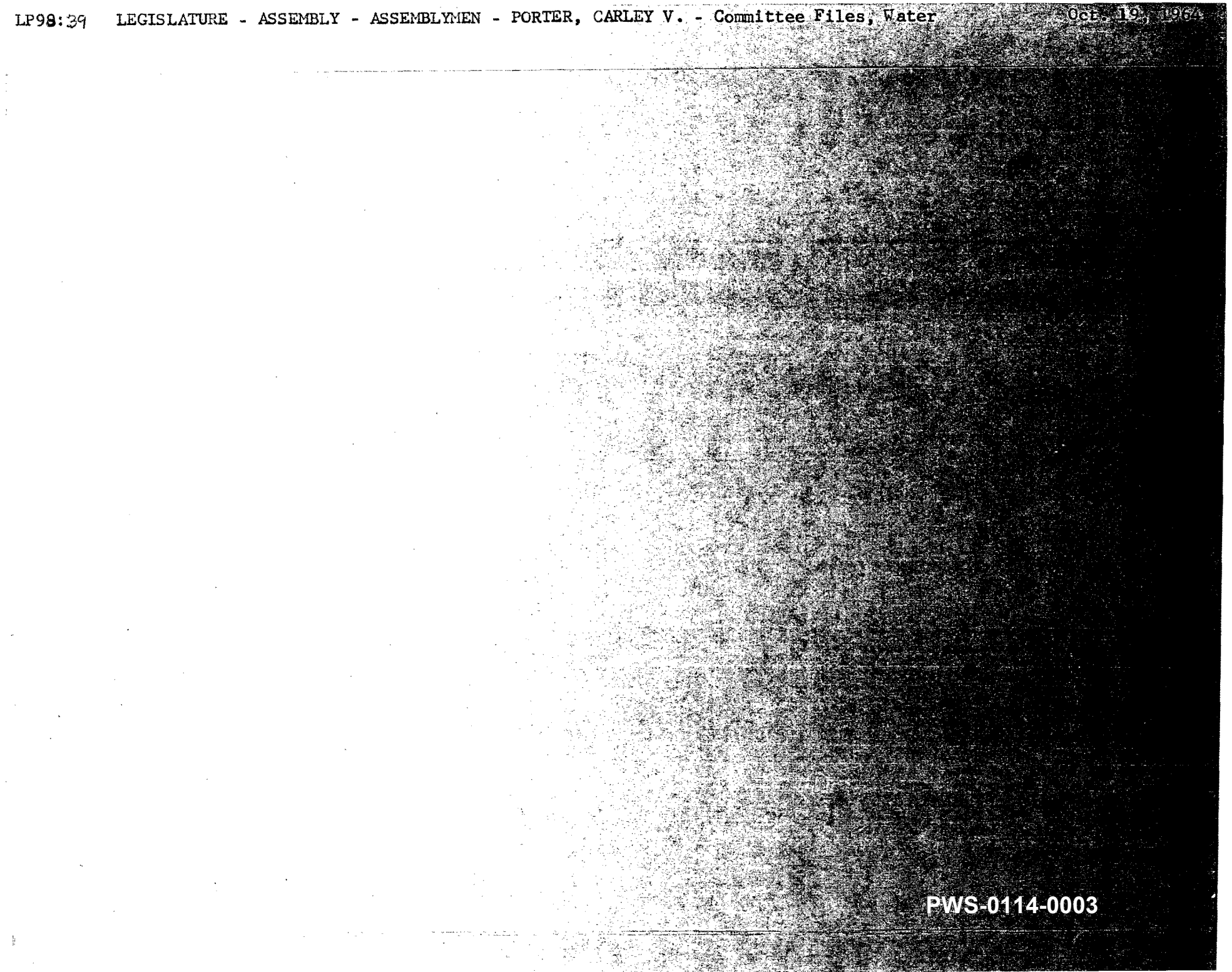


ANTELOPE VALLEY-EAST KERN

Water Agency

ADVISORY COMMITTEE

ad hoc

554 WEST LANCASTER BOULEVARD – LANCASTER, CALIFORNIA – WHITEHALL 2-8439

SYLLABUS

and

SUPPLEMENT
(Reference Material)

OF INFORMATION REVIEWED BY THE
ANTELOPE VALLEY-EAST KERN WATER AGENCY
ADVISORY COMMITTEE

Preliminary Draft – May 20, 1964
Revised – July 27, 1964

Membership of Advisory Committee

W. B. CARTER, Chairman
530 W. Lancaster Blvd. Lancaster

Lancaster Businessman
Vice-Chairman, Southern California Water Coordinating Conference
Chairman of State Forestry Board

BLAKE V. BLAKEY, Vice-Chairman
2456 Oak Creek Rd., Mojave

Mojave Businessman
Director, Mojave Public Utility District

E. W. BERTRAM
P.O. Box 367, Rosamond

Retired Rancher
Replaced Frank X. Miske - Sept. 9, 1963

ELMER CLEARY
44921 Sierra Hwy,, Lancaster

Lancaster Businessman
Chairman, Chamber of Commerce Water Committee

GIFFORD C. COLE
46402 North 100th St. East, Lancaster

East Antelope Valley Rancher
Director, Antelope Valley Soil Conservation District

MARCUS GRAHAM
P.O. Box 997, Mojave

Manager, United Carbon Company, Mojave

MRS. DOROTHY JACKSON
20423 Airway Blvd., California City

Director, California City Community Services District

R. B. McNUTT
44864 N. 11th St. West, Lancaster

Assistant Vice-President, Bank of America, Lancaster

DUNCAN V. PATTY
P. O. Box 1560, Bakersfield

Manager, Oil and Mineral Division, Tejon Ranch Company
Replaced John T. Grigsby, deceased 3-10-64

H. Wm. SCHAFER
3007 W. Avenue L, Lancaster

Palmdale Businessman
Director, Antelope Valley Country Club

PHILIP M. SCHWABACHER
44703 N. Elm, Lancaster

Attorney-at-Law, Lancaster

ANTELOPE VALLEY-EAST KERN
Water Agency
ADVISORY COMMITTEE
ad hoc

554 WEST LANCASTER BOULEVARD - LANCASTER, CALIFORNIA - WHITEHALL 2-8439

August 31, 1964

The Honorable Walter W. Stiern
Senator, 34th Senatorial District
212 Goodman Street
Bakersfield, California

Dear Senator Stiern:

The Antelope Valley-East Kern Water Agency Advisory Committee, which was appointed by the Board of Directors of that Agency in July, 1963, in response to your letter dated June 3, 1963, has completed its assignment and has filed its final report in the form of a Resolution, which was accompanied by a Syllabus containing reference material used by the Committee in making its study before drawing its conclusions. Minutes of the Committee meetings have been filed with the Secretary of the Agency.

The Resolution adopted by the Committee making its findings and conclusions was approved by an eight to three majority. The following Committee members voted for the Resolution: Whitford B. Carter, Chairman, Elmer Cleary, Gifford C. Cole, Marcus Graham, Duncan Patty, R. B. McNutt, H. William Schafer, and Phillip Schwabacher; and the following members dissented: Blake V. Blakey, Vice Chairman, Mrs. Dorothy Jackson, and E. W. Bertram. The Syllabus, however, was approved by nine of the members with one abstaining.

This Committee adjourned sine die on August 20, 1964, after I was authorized to present the report to the Board of Directors of the Antelope Valley-East Kern Water Agency.

We understand that pursuant to House Resolution No. 71, a hearing will be held by the Assembly Water Committee. We are enclosing, as you have suggested, a copy of the Resolution and Syllabus, which were presented to the Antelope Valley-

East Kern Water Agency Board of Directors, for both you and Assemblyman Jack T. Casey. I am also forwarding a copy of this same information to Assemblyman Carley V. Porter, Chairman of the Assembly Water Committee.

Sincerely yours,

W. B. Carter

WBC:bjr

Encls.

cc: Jack T. Casey, Assemblyman
28th District
Carley V. Porter, Chairman
Assembly Water Committee

RESOLUTION
OF THE ANTELOPE VALLEY-EAST KERN
WATER AGENCY ADVISORY COMMITTEE (ad hoc)

FINDINGS AND CONCLUSIONS

A. WHEREAS, the Antelope Valley-East Kern Water Agency Board of Directors created this Advisory Committee on July 23, 1963 and adopted rules governing the appointment of committee members, defining their duties and allocating time for the completion of the committee report; and

B. WHEREAS, the committee was requested to study and report its findings in the form of a written report on the following:

1. Financing the conveyance system;

2. Severing the Kern County area of the Agency;

3. Revising the Agency Act as an alternative solution to severing the Kern County area of the Agency;

4. Any other matters deemed significant by the committee; and

C. WHEREAS, this committee has met on 11 occasions, has received testimony from 49 witnesses, has received 83 letters and reports in preparation and compilation of a syllabus to assist the 11-member committee in reaching final conclusions; and

D. WHEREAS, the committee has invited persons, qualified in fields related to matters assigned to the committee for study, to appear before scheduled committee meetings and give technical advice, testimony from governmental and private organizations was requested and received, and the public was invited to participate in the discussions; and

E. WHEREAS, the committee has provided opportunities for interested persons and firms to appear before the committee to present oral and written statements during a 12-month period; and

F. WHEREAS, the committee has received cooperation from and is indebted to public agencies, major taxpayers, corporations and many interested persons who have appeared before the committee; and

G. WHEREAS, sufficient information and facts have been presented to the committee within the time allotted to reach these conclusions and make recommendations;

NOW, THEREFORE, BE IT RESOLVED BY THE ANTELOPE VALLEY-EAST KERN WATER AGENCY ADVISORY COMMITTEE as follows:

1. "FINANCING THE CONVEYANCE SYSTEM"

That financing the water system and related facilities required by the Agency to

> "acquire, control, distribute, store, spread, sink, treat, purify, reclaim, recapture, and salvage any water including sewage and storm water for the beneficial use or uses and protection of the Agency or its inhabitants or the owners of rights to water therein"

be as follows:

(a) The "CAPITAL COST COMPONENTS" of the State Water Project which are allocated and assessed to the Antelope Valley-East Kern Water Agency pursuant to its water supply contract with the Department of Water Resources be paid through the levy of a tax upon property within the Agency.

(b) The "MINIMUM OPERATION, MAINTENANCE, POWER AND REPLACEMENT COMPONENTS" of the State Water Project, the costs of which are allocated to the Antelope Valley-East Kern Water Agency pursuant to its water supply contract with the Department of Water Resources be paid through the levy of a tax upon the property of the Agency until State Project water is delivered and thereafter in so far as it is practicable to do so, all or a portion of this cost be paid through a charge for the use of Project water.

(c) The "COST OF DELIVERY STRUCTURES AND METERING DEVICES," as required by Antelope Valley-East Kern Water Agency to accept water from the State Water Project, be paid through the levy of a tax upon the property within the Agency.

(d) That the cost of "RAW WATER RESERVOIRS," if constructed by the Agency to provide peaking and regulation storage, should include recreational features, if feasible, and that revenues charged for the use of such recreational facilities be used to aid in defrayment of costs of the construction and maintenance of such reservoirs or Agency expenses.

(e) That the cost of "RAW WATER RESERVOIRS, TREATMENT PLANTS, and RESERVOIRS FOR STORING TREATED WATER, LANDS AND AQUEDUCTS," the benefits of which accrue to the entire Agency, be financed by the

issuance of 40-year bonds, or by a Government loan probably through the Bureau of Reclamation Act of 1902 payable in 50 years, and that the debt be serviced by the levy of an ad valorem tax upon theproperty of the District, and that the Agency seek to obtain low interest rates and non-reimbursable funds where available through Federal and State laws.

(f) That the cost of "LATERAL CONVEYANCE MAINS, REGULATING DEVICES, PUMPS, VALVES, TREATMENT PLANTS, RESERVOIRS FOR STORING TREATED WATER, AND WATER RECLAMATION PROJECTS," etc., the benefit from which flow to a portion of the district, be paid for by the levy of a tax upon the property in an improvement district organized to include only the benefitted lands.

(g) That the Agency explore the feasibility of the issuance of revenue bonds pursuant to the Revenue Bond Act of 1941 in the event a Government loan at low interest rate is not obtainable for the financing of the improvement described in (d), (e), and (f), and in this connection, to also consider the feasibility of financing, in so far as practicable, the cost of any of the improvements in (d), (e) and (f), by a charge for Project water service.

2. "SEVERING THE KERN COUNTY AREA OF THE AGENCY"

(a) That no evidence was presented which shows a tax advantage or lower cost advantage to either East Kern or Los Angeles County portions of the Agency by withdrawal or severance thereof at the County line.

(b) That it would not be practicable, or hydrologically correct to sever AVEK at the Kern County line.

(c) Hydrologically, there appears to be some evidence to support withdrawal of the lands within the Fremont Basin.

(d) That the Legislature provided in the Antelope Valley-East Kern Water Agency Law procedures by which territory may be withdrawn from the Agency. The withdrawal processes may be initiated either by a petition or by a resolution of the Board of Directors or by an Act of the Legislature.

3. "REVISING THE AGENCY ACT AS AN ALTERNATE SOLUTION TO SEVERING THE KERN COUNTY AREA OF THE AGENCY"

(a) That the matter of severance or revisions to the Agency Act as an alternative thereto was advanced because the Board of Directors of the Agency had in 1963 considered the possibility of financing the conveyance system out of an Accumulative Capital Outlay Fund procedure; we doubt that the Agency can utilize this procedure and the Board of Directors has not advanced this procedure as a policy of the Agency.

(b) That the methods of financing now available in the Agency Law, namely, issuance of short-term promissory notes repayable within three years levying of taxes upon property within the Agency, not to exceed 10¢ for administrative purposes, the levying of taxes upon property within the Agency to meet contractual obligation with Governmental agencies, incurring bonded indebtedness in the entire Agency or within improvement districts, requiring approval by a 2/3 majority of the voters, issuance of revenue bonds pursuant to the Revenue Bond Act of 1941, or use of the Improvement Act of 1911 for financing improvements of local benefit within an assessment district fixing rates for water service and obtaining Federal or State financial aid appear to provide adequate financing capabilities.

(c) The Committee finds that members of the governing body who are elected representatives of the people have the power to establish reasonable policies with respect to financing and operating improvements authorized under the Agency Act.

(d) The Committee further concludes that time and opportunity should be given to the Antelope Valley-East Kern Water Agency and the Kern County Water Agency to negotiate and agree upon an equitable method of resolving the problem of dual taxation in the East Kern Portion of the Agency.

(e) The Committee concludes that no major changes are necessary to be made in the Agency Law.

4. "ANY OTHER MATTERS DEEMED SIGNIFICANT BY THE COMMITTEE"

(a) The Committee recognizes that the Agency is overlapped by the Kern County Water Agency, that the East Kern area is not now entitled to receive water from the Kern County Water Agency, that the East Kern lands are subject to a tax by the Kern County Water Agency limited to 5¢ and that the East Kern area is receiving only indirect benefit from the Kern County Water Agency tax levied for meeting contractual requirements with the State Department of Water Resources.

(b) That representation on the Antelope Valley-East Kern Water Agency Board of Directors by 7 members elected by voters within the Divisions of the Agency, the boundaries of which were first established by the Department of Water Resources, each having approximately the same population, is consistent with the Agency Law and with the Supreme Court decision, that elected representation on political subdivisions must be in proportion to population.

Adopted August 6, 1964.

A motion to adopt the Resolution making final conclusions of the Antelope Valley-East Kern Water Agency Advisory Committee was made by R. B. McNutt, seconded by H. W. Shafer, and carried by a vote of 8 ayes and 3 nays.

INDEX to SYLLABUS

Item No.		Page No.
1.	**OBJECTIVE OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY ADVISORY COMMITTEE**	1
	(a) Items To Be Studied	1
	(b) ad hoc Committee	1
2.	**ORIGIN OF THE ADVISORY COMMITTEE**	1
	(a) Resolution R-63-12 – Establishing Rules of Advisory Committee	1
	(b) Rules of Advisory Committee Approved by AVEK Board of Directors	2
	(c) Membership of Committee	3
	(d) Senator Stiern Requests Appointment of Committee – Letter	3-4
3.	**DEFINITIONS**	5
4.	**ORIGIN OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY**	6
	(a) AVEK Created in 1959	6
	(b) Appointment of First Board of Directors and Initial Establishment of Divisions	6
	and Map of "Antelope Valley-East Kern Water Agency Division Boundaries 1959"	6-a
	(c) List of Appointees and Elected Board Members	7
	(d) Water Associations in Antelope Valles Initiate Action to Import Water	7
	(e) Membership of Water Association	8
	(f) Water Association Supports California Water Plan	8
	(g) California Water Resources Development Bond Act (Burns-Porter Act)	8
	(h) Contracting Principles and Prototype Contract	8-11
	(i) Need for Local Water Agency	11
	(j) Municipal Water District Act of 1911 (Act 5243, Statutes 1911, Chapter 671)	11
	(k) Letter from Harvey O. Banks, Director, State Dept. of Water Resources – 4-19-59	12-13
	(l) Senate Bill 1068, 1959 Legislative Session	14-15
	(m) Senate Bill 1068 Enacted into Law	16
	(n) Annexations and Exclusions	16
	(o) Map of Annexations and Exclusions	16-a
5.	**WATER SUPPLY CONTRACT BETWEEN AVEK AND DWR**	17
	(a) AVEK Eligible to Obtain a Contract (Feasibility Report)	17
	(b) Water Supply Contract Signed	17
	(c) Contract Validated	17
6.	**GOVERNMENT OF THE AGENCY**	17
	(a) Governing Body	17
	(b) Officers of AVEK	17
	(c) Powers and Purposes	17
7.	**BOUNDARIES OF AVEK RELATED TO WATER BASIN**	18
	(a) Assumed Hydrologic Unit	18
	(b) Testimony Relating to Water Basin Boundaries	18-19
	(c) Local Basinwide Districts Can Best Replenish Overdrawn Ground Water Basins Letter From Mr. Carley Porter to Hon. Jesse M. Unruh – October 5, 1962	21
	(d) Delivery Point of Imported Water to AVEK	21
8.	**FINANCING AGENCY PROJECTS**	22
	(From a Report to AVEK Finance Committee by R. G. Lunt)	
	(a) Review of Premise and Authority	22
	(b) Financing AVEK Share of the State Water Project	22
	(c) Financing Local Projects of the Agency	23
	i. Short Term Promissory Notes	23
	ii. General Agency Tax	23
	iii. Revenue Bonds	23
	iv. Improvement District Act of 1911	23
	v. General Obligation Bonds	24
	vi. Formation of ad valorem Improvement Districts	24
	vii. Miscellaneous Fees for Services	25
	viii. Plans of AVEK	25
	ix. Time Schedule Estimated by Bureau of Reclamation	26
	and Letter	27-28

Item No.		Page No.
9.	**OVERLAP OF THE KERN COUNTY WATER AGENCY UPON THE ANTELOPE VALLEY-EAST KERN WATER AGENCY**	29
	(a) Origin and Boundaries	29
	(b) Taxing Powers Over Entire Agency Limited to 5¢	29
	(c) Taxing Powers in Unit Members and Zones of Benefit (No Limit)	29
	(d) Agency Activated September 26, 1961	29
	(e) Agency Signed Contract for Supplemental Water 11-12-63	29
	(f) Tabulation of Voting Results in Overlapped Area	30
	(g) Allocation of State Project Water to KCWA Unit Members	31
10.	**SEVERANCE**	31
	(a) AVEK Created in 1959	31
	(b) Voters in East Kern Area Supported Water Bond Issue	31
	(c) Kern County Water Agency Activated	31
	(d) AVEK-DWR Sign Contract Entitling AVEK to State Water	31
	(e) AVEK-DWR Contract Validated	31
	(f) KCWA Voted on a Water Supply Contract	32
	(g) AVEK Complied with Contract on Delivery Structures and Water Delivery Schedule	32
	(h) Table of Anticipated Water Delivery Schedules	32
	(i) Severance and Re-Allocation of Water	33
	(j) AVEK can Feasibly Deliver Water to Communities	33
	(k) Adjudication of Water Rights and the County Boundary	33
	(l) AVEK has Exercised Its Powers in AVEK to Provide Water Service	33
	(m) Kern County Water Agency Does not Intend to Infringe Upon AVEK	33
	(n) Severance by Legislature	34
	(o) Severance May Be Initiated by AVEK Board or By Petition.	34
	(p) Letters Indicating Some Views on Severance	34
	i. Letter to W.B. Carter from W.J. Diffley, U.S. Borax & Chemical Corp. (page S-90)	
	ii. Letter to W.J. Diffley from D.C. Sparling, Mojave Public Utility District (page S-87)	
11.	**WITHDRAWAL PROCEDURES**	34
	(a) AVEK Law permits Territory to be Withdrawn	34
	(b) Letter to W.B. Carter from Sanford A. Waugh, Attorney	35-36
	(c) Lands Withdrawn Will Not Escape Contractural Obligations	37
	(d) AVEK Board May Conduct Hearings and Order Election	37
	(e) DWR Approval is Required to Modify Boundaries	37
12	**AMEND THE AGENCY ACT**	38
	(a) Amend Law as an alternative to Severance	38
	(b) Reasons for Amendments to Agency Act as an Answer to Severance Not Specified	38-43
	(c) Joint Powers Agreement Between Kern County Water Agency and AVEK	43

INDEX to SUPPLEMENT

	NAME OF REFERENCE	PAGE NO.
1.	Editorial A.V. Ledger-Gazette – April 30, 1959 "Municipal Water District Should Include All Of Water Basin"	S-1
2.	Editorial A.V. Ledger-Gazette – May 11, 1959 "Without Master Water District, All We Will Have Is Desert"	S-2
3.	Editorial A.V. Ledger-Gazette – May 18, 1959 "Should PID Directors Speak For Entire Valley On Water Problem?"	S-3
4.	Editorial A.V. Ledger-Gazette – May 25, 1959 "All Factors Indicate One Water District Best for Basin's Area"	S-4
5.	Editorial A.V. Ledger-Gazette – May 27, 1959 "Committee Acts On Water Body"	S-5
6.	Editorial A.V. Ledger-Gazette – May 29, 1959 "New Water District Boundaries Set At Sacramento Meeting"	S-5
7.	Studies Report and Conclusions to the Assembly Interim Committee on Water "Ground Water Problems in California"	S-6 – S-22
8.	AVEK Water Agency Law – Section 61 "Powers of AVEK"	S-23 – S-26
9.	AVEK Water Agency Law – Section 61.1 "Equitable Distribution and Apportionment of Water; Determination of Fair Share"	S-26
10.	AVEK Water Agency Law – Section 65 "Exercise and Delegation of Administrative, Executive and Ministerial Powers"	S-27
11.	AVEK Water Agency Law – Section 67 "Officers and Employees; duties; bonds; designation of depositories of funds"	S-28
12.	Portion of California Water Resources Development Bond Act Water Code, Chapter 8, "Water Resources Development Bonds"	S-29 – S-36
13.	Portion of Assembly Interim Committee Report (1963-65) Vol. 26, Number 9 "Study of Water District Laws" (Districts created by Legislature)	S-37 – S-42
14.	Letter – Senator Walter W. Stiern from Al E. Akelton – May 22, 1963	S-43 – S-54
15.	Attachments to above Stiern Letter	
	(a) Proposed Amendment to Senate Bill 1524	S-55
	(b) Map of Ground Water Basins	S-56
	(c) Antelope Valley Basin Ground Water Profiles	S-57
	(d) Fremont Valley Basin Ground Water Profiles	S-58
	(e) Historic and Projected Population in AVEK	S-59
	(f) Current Assessed Valuation and Estimated Market Value, 1962-63	S-60
	(g) Present and Projected Assessed Valuations	S-60
	(h) Tax Rate Necessary for Capital Repayment of Local Conveyance Facilities and State Water Facilities	S-60
16.	Letter – Senator Walter W. Stiern from R. G. Lunt – May 29, 1963 Subject: Senate Bill 1524	S-61
17.	Attachments to above Stiern Letter	
	(a) Resolution R-63-12 – Proposed	S-63
	(b) Resolution R-63-12 – Adopted	S-65
18.	Senate Bill 1524 as Introduced and Amended April 26, 1963	S-66
19.	Letter Report – California Taxpayers' Association to Mr. Henry O. Harries Atchison, Topeka & Santa Fe Railway Company – December 12, 1963	S-67

	NAME OF REFERENCE	PAGE NO.
20.	Letter Report – Mr. R.M. Edmonston of Bookman and Edmonston Consulting Civil Engineers to "AVEK Major Taxpayers' Committee" Attn: Mr. George H. Sturtevant, Chairman – December 24, 1963	S-71
21.	List of Antelope Valley - East Kern Major Taxpayers – May 24, 1963	S-78
22.	Revised List of Antelope Valley - East Kern Major Taxpayers – Rec. Dec. 10, 1963	S-79
23.	Ordinance O-64-2 – Relating to Policy on Financing and Budget Procedures Adopted by AVEK Board of Directors February 25, 1964	S-83
24.	Letter Report – Al E. Skelton from R.G. Lunt Relating to Apportionment of Water	S-85
25.	Letter – Walter J. Diffley, U.S. Borax & Chemical Corp. from D.C. Sparling, President, Mojave Public Utility District – June 19, 1964	S-87
26.	Letter Report – Whitford B. Carter from W.J. Diffley, United States Borax & Chemical Corp., Boron, Calif. – July 2, 1964	S-90
27.	Letter – W.B. Carter from Eursell Sl Cordell, U.S. Dept. of Agriculture, Soil Conservation Service – Relating to Need for Flood Control – July 7, 1964	S-93
28.	Attachment to above Eursell S. Cordell Letter	
	(a) Inventory of Watershed Project Needs	S-94
29.	Additional Information to above letter and attachments	S-96
30.	Map - Watershed	S-98
31.	Portion of AVEK "Reconnaissance Report" December 1963	
	(a) Map – Occurrence and Movement of Ground Water	S-99
	(b) Reconnaissance of Ground Water in The Western Part of The Mojave Desert Region, California	S-100
	(c) Map – Water Conveyance Facilities	S-108
	(d) Reconnaissance Design of AVEK Conveyance System	S-109
	(e) Summary of Conveyance Methods	S-113
	(f) Chart – Population Projections	S-115
	(g) Chart – Method of Payment of State Water Project Costs	S-116
32.	Resolution No. 30 – May 22, 1961, adopted by AVEK Board of Directors – Relating to Flood Control Project known as "Portal Ridge Watershed Project"	S-117
33.	Letter Report – W.B. Carter from United Water Conservation District, Wm. P. Price, Jr., General Manager & Chief Engineer	S-118
34.	Letter Report – Harvey O. Banks and Clair A. Hill from Feather River Project Association, Dell L. Falls and Murray D. Pond	S-121
35.	Letter – Warren M. Dorn from Raymond H. Krueger	S-124
36.	Letter – Warren M. Dorn from Milton Breivogel, Director of Planning, The Regional Planning Commission	S-125
37.	Letter – AVEK Board of Directors from John A. Lambie, County Engineer "Formation of District For Flood Control Purposes"	S-128
38.	MISCELLANEOUS MAPS	
	(a) Improvement District No. 2	S-130
	(b) Flow Distribution Analysis	S-131
	(c) Improvement District No. 1	S-132

SYLLABUS

1. OBJECTIVE OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY ADVISORY COMMITTEE

(a) Items To Be Studied

The Advisory Committee was created for the purpose of studying and recommending to the Antelope Valley-East Kern Water Agency Board of Directors the following:

1. Financing the conveyance system for supplemental water.
2. Severing the Kern County Area of the Agency.
3. Revising the Agency Act as an alternative solution to severing the Kern County area of the Agency.
4. Any other matters deemed significant by the Committee.

(b) ad hoc Committee

The Committee will be dissolved when it completes its assignment. The committee has indicated that it desires to prepare its report in such a form that it would be a credit to the Committee and useful to the public, the Agency, and perhaps the State Legislature.

2. ORIGIN OF THE ADVISORY COMMITTEE

(a) Resolution R-63-12

A RESOLUTION ESTABLISHING AN ADVISORY COMMITTEE FOR THE PURPOSE OF STUDYING AND REPORTING, WITHIN ONE YEAR, MATTERS RELATING TO THE BOUNDARIES AND FINANCING IMPROVEMENTS OF THE AGENCY.

WHEREAS, the Board of Directors of the Antelope Valley-East Kern Water Agency wishes to create an advisory committee composed of taxpayers and other interested citizens to prepare a study relating to the future plans and operations of the agency, particularly those areas pertaining to the financing of the conveyance system and to the question of the suggested severence of the East Kern area from the agency,

The Board hereby resolves that the tax rate for the period of July 1, 1963 through June 30, 1964 the study be based on:

A. The agency's administrative costs, exclusive of expense of contract validation and expenses incidental thereto and exclusive of expenses involved in existing contracts, within the 10¢ limit.

B. The amount necessary to meet current payments to the State Water Plan.

The immediate purpose of the committee would be served by their presenting to the agency, with a copy to the Legislature, a report and recommendation not later than July 1, 1964. The advisory committee would consist of taxpayers and other persons deemed to be qualified and interested in local governmental affairs to study and report upon the functions and services of this agency.

As a result of the foregoing action it is requested of Senator Walter W. Stiern, that Senate Bill 1524 be withdrawn from legislative consideration.

Dated this 28th day of May, 1963.

Al E. Skelton, President

Attest:

Bettie J. Swanson, Secretary

2. ORIGIN OF THE ADVISORY COMMITTEE (continued)

(b) Rules of Advisory Committee Approved by the AVEK Board of Directors July 23, 1963

MEMBERSHIP

The committee shall be appointed by the Board of Directors. There shall be eleven members, five of whom shall be either residents or property owners in Kern County and five of whom shall be either residents or property owners in Los Angeles County, and one of whom may be a resident or property owner of either County.

TERM OF OFFICE

The committee may submit a report or reports to the Board on or before June 1, 1964. The committee shall have served its purpose and be dissolved 60 days after submission of its final report or on August 1, 1964, whichever occurs first.

APPOINTMENT OF MEMBERSHIP

The Board shall consider for appointment to the committee one candidate nominated by each Director, each of whom shall be a resident or property owner of the division represented by the nominating director. Final appointment of each nominee shall be made subject to the approval of a majority of the Board. The four remaining members shall be nominated by the Personnel Committee. Vacancies, however created, shall be filled in the same manner.

CHAIRMAN

The Board of Directors shall appoint a temporary Chairman and at the first meeting the committee shall select a permanent Chairman and a Vice-Chairman. It will be the duty of the Chairman to call and conduct all meetings of the committee and to coordinate its progress.

QUORUM

A quorum shall be necessary for a meeting and shall consist of not less than six members including either the Chairman or Vice-Chairman. The vote of a majority of those present at a meeting shall be required for any action.

MEETING PLACE

The committee may conduct its first meeting in the Agency headquarters. The Secretary may mail notices of all committee meetings to each Committee Member, to each Director and to the Administrative and Legal Staff at least 48 hours prior. No other notice of these meetings is necessary.

OFFICE SPACE, INFORMATION AND FACILITIES

The agency may provide office space for sub-committee meetings, if necessary, and an office for the Chairman or Vice-Chairman, if such space is needed. The Agency, through the Chief Engineer, shall provide all technical and clerical assistance and public information required by the Committee.

FUNCTIONS OF THE COMMITTEE

The Committee is appointed primarily to advise the Board and not to perform specific services for the Board. The Board of Directors cannot delegate any of its powers to a lay committee or others and must reserve the right in the appointment of this committee to accept or reject, in whole or in part, the findings of the committee and must reserve to the Board the matter of establishing policies on any matter which may be included in the report prepared by the Committee.

Specifically, the Committee is requested to study and report its findings in the form of a written report on the following:

1. Financing the conveyance system for supplemental water
2. Severing the Kern County area or the Agency.
3. Revising the Agency Act as an alternative solution to severing the Kern County area of the Agency.
4. Any other matters deemed significant by the Committee.

2. ORIGIN OF THE ADVISORY COMMITTEE (continued)

(c) Membership of Committee

NAME	NOMINATED BY	APPOINTED BY AVEK BOARD OF DIRECTORS
*E. W. Bertram	Director Williams, Division 2	Sept. 9, 1963
Blake V. Blakey	Director Cooper, Division 1	July 9, 1963
Whitford B. Carter	Director Skelton, Division 3	July 9, 1963
Elmer Cleary	Personnel Committee	July 23, 1963
Gifford C. Cole	Director Simi, Division 7	July 9, 1963
Marcus Graham	Personnel Committee	July 23, 1963
Dorothy Jackson	Personnel Committee	July 23, 1963
R. B. McNutt	Director Godde, Division 5	July 9, 1963
**Duncan V. Patty	Personnel Committee	March 10, 1964
H. William Schafer	Director Hunt, Division 4	July 9, 1963
Philip M. Schwabacher	Director Redman, Division 6	July 9, 1963

*Replaced Frank X. Miske
**Replaced John T. Grigsby, deceased

(d) Senator Stiern Requests Appointment of Committee

The AVEK Board of Directors was requested to appoint an Advisory Committee by Senator Walter W. Stiern, from Bakersfield, representing the 38th Senatorial District.

(See Stiern letter – Page Four)

WALTER W. STIERN
THIRTY-FOURTH SENATORIAL DISTRICT
KERN COUNTY

CALIFORNIA LEGISLATURE

Senate

June 3, 1963

Mr. Al E. Skelton, President
Board of Directors
Antelope Valley-East Kern Water Agency
554 W. Lancaster Blvd.
Lancaster, California

Dear Mr. Skelton:

I am writing to you to summarize my conclusions after a meeting in my offices today in which the AVEK Board, the major taxpayers committee and the principal communities of East Kern were represented. The discussion concerned financing the Agency's water conveyance system and the severance of the East Kern area as proposed by my Senate Bill 1524. Specifically, we discussed these matters in the context of your Board's Resolution R-63-12 approved May 28.

As a result of our discussions I have agreed to drop Senate Bill 1524 and my proposed Senate Resolution in order to allow the interested parties to discuss solutions to the current problems within the framework of your Resolution R-63-12.

It is my understanding that Resolution R-63-12 provides for maintenance of the tax rate for the fiscal year 1963-64 at a level based on (a) the amount necessary to meet current payments to the State Water Plan; and (b) the Agency's administrative expense and expenses involved in existing contracts within the 10¢ administrative limit.

My draft resolution provided for the appointment of an Advisory Committee by the Board to study these matters:

(a) financing the conveyance system for supplemental water;
(b) severing the Kern County area of the Agency; and
(c) revising the Agency Act as an alternative solution to severing the Kern County area of the Agency.

The group agreed that the points outlined in my draft resolution accurately states the areas to be covered in the study.

Since the exact composition of the Advisory Committee was not spelled out in Resolution R-63-12, it was generally agreed that the formula which was included in my draft of the Senate Resolution would be desirable.

This formula calls for a committee composed of seven members, three of whom shall reside in Kern County or represent property owners in the Kern County area of AVEK, three of whom shall reside or represent property owners in the Los Angeles area of the Agency, and one of whom may reside or represent property owners in either area of the Agency. It was agreed that the persons selected to serve on the Advisory Committee shall be the most qualified persons available, other than persons who serve on the Board or who are employed by the Agency.

It was also decided, taking once again the language of my proposed resolution, that since the Advisory Committee will serve without compensation, travel expense, or per diem, that the AVEK Water Agency might cooperate with the Advisory Committee in every way possible and provide clerical services, technical information and office space to it. The Advisory Committee, I understand, shall establish its own procedures with respect to the election of officers, the time and place of meetings, and the appointment of sub-committees, and like matters.

I further understand that the advisory Committee will submit a report and recommendation to the AVEK Board on or before June 30, 1964, with copy to the Legislature through me.

With these arrangements, I am in full accord, and because of them I will drop Senate Bill 1524 and my Senate Resolution. I know that, given good will and hard work, the solution agreed to jointly by all the parties can work.

Sincerely yours

WALTER W. STIERN
State Senator

DEFINITIONS

When used herein:

"**AVEK**" means "The Antelope Valley-East Kern Water Agency

"**Board**" means "The Board of Directors of AVEK"

"**Committee**" means "The AVEK Advisory Committee" created July 23, 1963

"**KCWA**" means "The Kern County Water Agency"

"**DWR**" means "Department of Water Resources"

"**MWD**" means "Metropolitan Water District"

"**ad hoc**" means "For this Purpose"

"**ad valorem**" means "Assessment – in proportion to value"

"**aquifer**" means "Permeable Geologic Formation, usually recent aluvium saturated with water

4. ORIGIN OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY

(a) AVEK Created in 1959

AVEK was created in September 1959, by the State Legislature. Act 9095, Section 49 et seq. (Statutes 1959, Chapter 2146)

(b) Appointment of First Board of Directors and Initial Establishment of Divisions

The Agency Law required the Governor to appoint the first seven members of the Board and directed the Director of the State Department of Water Resources to establish divisions within the Agency, each division to have the same population as nearly as practicable, from which the Governor would appoint a Director

ORDER OF THE DIRECTOR OF WATER RESOURCES
ESTABLISHING THE DIVISIONS OF THE
ANTELOPE VALLEY-EAST KERN WATER AGENCY

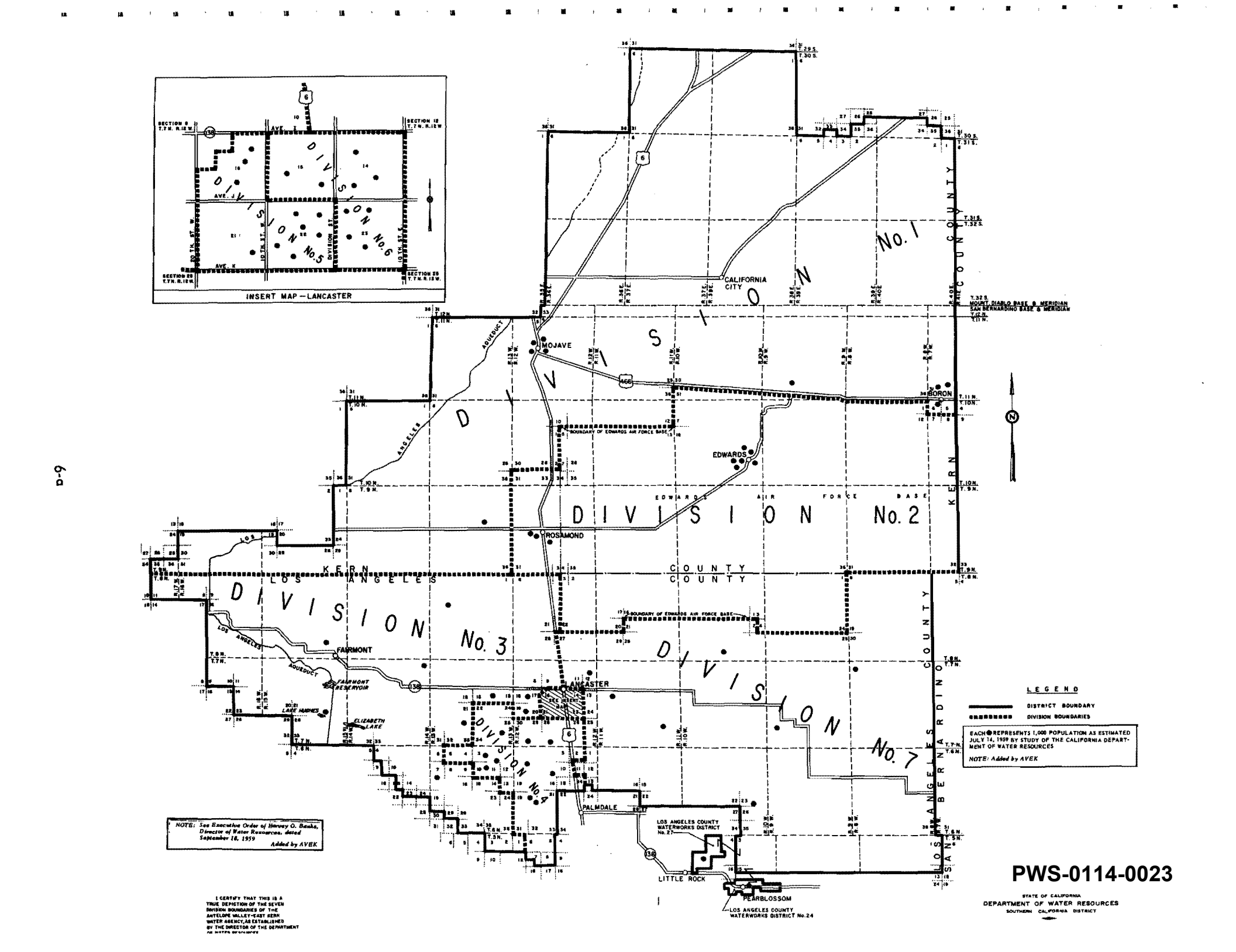
WHEREAS, Section 51 of the Antelope Valley-East Kern Water Agency Law (Chapter 2146 Statutes 1959) provides, in part, that seven divisions of such agency shall be established by the Director of the State Department of Water Resources according to and based upon the population so as to equalize, as nearly as practicable, the population in the respective divisions; and

WHEREAS, I have caused a study to be made of the distribution of population in the area of the agency and have found the estimated population of each division established by this order to be as follows:

Division Number	Name	Estimated Population as of July 14, 1959
First	Mojave	8,805
Second	Rosamond	9,295
Third	West Antelope Valley	9,509
Fourth	Quartz Hill	9,606
Fifth	West Lancaster	10,039
Sixth	East Lancaster	9,246
Seventh	East Antelope Valley	9,247
	TOTAL	65,747

NOW THEREFORE, by virtue of the authority vested in me by law, I hereby order that the divisions of the Antelope Valley-East Kern Water Agency are established as delineated on the map attached hereto entitled "Antelope Valley-East Kern Water Agency Divisions Boundaries 1959" with boundaries described as follows:

(Legal Description not included. See map on following page.)



D-9

PWS-0114-0023

4. ORIGIN OF AVEK (continued)

(b) Appointment of Fist Board of Directors and Initial Establishment of Divisions (continued)

AVEK Law requires all successors of the first board to be elected or appointed.

NOTE: The election, or appointment procedure is identical to the Municipal Water District Act of 1911. (Water Code, Section 71000 et seq., Division 20)

AVEK was activated December 1, 1960 when the appointment of the Board of Directors by the Governor became effective

(c) List of Appointees and Elected Board Members

Following is a list of the Directors who have served in each of the Divisions:

Division	Appointed by Governor	Vacancy Filled by Board	Uncontested Appointment by Supervisors	Voted by Electorate
1	Harry Levy 12-15-59	Dan Cooper 12-12-61	Dan Cooper 4-17-62	
2	Nelson Sweetser 12-15-59	Ruel Williams 1-26-60	Ruel Williams 4-17-62	
3	Alfred E. Skelton 12-15-59			Alfred E. Skelton 6-5-62
4	Nils K. Anderson 12-15-59	S. Jos. Hunt 1-26-60	S. Jos. Hunt 1-10-61	
5	Sidney K. Osheim 12-15-59	Roy Knapp 1-10-61		Forrest G. Godde 6-5-62
6	Forrest G. Godde 12-15-59	W. M. Redman 4-10-62		
7	Harry Gauger 12-15-59	Roy J. Simi 11-14-61	Harry Gauger 1-10-61	

(d) Water Associations in Antelope Valley Initiate Action to Import Water

AVEK came into being through the efforts of the Antelope Valley-East Kern Water Basin Association and interested parties. The Association considered the need for supplementary water in Antelope Valley and East Kern areas. It held many meetings over the period extending from 1956 through 1959. When originally organized it was known as the Antelope Valley Water Association, its name was later changed to Antelope Valley Feather River Association, and finally the name was changed to Antelope Valley-East Kern Water Basin Association.

4. ORIGIN OF AVEK (continued)

(e) Membership of Water Association

Following is a partial list of persons who were members of the Antelope Valley-East Kern Water Basin Association:

Al E. Skelton, Westside
Bob Jones, Eastside
Ray Edwards, Lancaster
Jim Hunt, Desert View Highlands
Bob Aikins, Desert View Highlands
Randle G. Lunt, Co. Waterworks Districts
Albert G. Brown, Boron
Edgar M. Cook, White Fence Farms
Gifford Cole, Eastside
M. R. Cord, Hi Vista
Clare Forward, Boron
George V. Kartozian, Desert View Highlands
Harry M. Levy, North Edwards
Ewell Moffitt, Leona Valley
R. B. McNutt, Lancaster
Jane S. Pinheiro, Quartz Hill
Eva Savell, Lancaster
Charles E. Spicer, Mojave
Carl Schaumann, Lancaster
Gordon Varley, Wilsona Gardens
Ruel Williams, Rosamond
Dell Falls, Lancaster
C. V. Davis, Palmdale
L. W. Felt, Palmdale
B. W. Messer, Leona Valley
W. J. Valentine, Lancaster
George Fessenden, Lancaster
William Holmes, Lancaster
Bud Redman, Lancaster
W. N. Taylor, Leona Valley - Quartz Hill
Capt. Boyd, Lancaster
C. B. Colby, Palmdale
A. B. McAdams, Mojave
Warren O. Wagner, So. Antelope Valley
William Wright, Lancaster
S. Jos. Hunt, Desert View Highlands
Harold V. Smith, Mojave River Valley
John Coffeen, Palmdale
Arthur Etz, Lake Hughes-Lake Elizabeth
Roy Brown, Boron
L. R. Schwager, Lancaster
Phil Neubarth, Lancaster
R. E. Griffith, Lancaster
Wm. R. Dye, Lancaster
Dr. Albert W. Thompson, Lancaster
T. R. Rupner, Lancaster
Irving Harris, Lancaster
Keith Tindall, Lancaster
Jim Jackson, Lancaster
Bob Robertson, Lancaster
Morgan Trammel, Lancaster
Sheldon Jaqua, Lancaster
Herb Comstock, Lancaster
Herm Mohling, Lancaster
Eddie Shaw, Lancaster
Millard Coddington, Lancaster
Charles Huley, Antelope Acres
Jim Hennesy, Lancaster
William Keller, Lancaster

(f) Water Association Supports California Water Plan

The California Water Plan was again considered by the State Legislature and finally enacted Chapter 2053. Problems concerning the "County of Origin" Water Rights and the method of paying off the bonded indebtedness were nearly all resolved. The Feather River Project Association and the Antelope Valley-East Kern Water Basin Association were also concerned in supporting creation of the California Water Resources and Development Bond Law.

See Supplement (Page S-121) for letter from Antelope Valley Feather River Project Association dated September 6, 1956 to Harvey O. Banks, Director of Water Resources, Sacramento.

(g) California Water Resources Development Bond Act (Burns-Porter Act)

The Antelope Valley-East Kern Water Basin Association supported the Burns-Porter Act. The Legislature authorized the Burns-Porter Act which would take effect upon adoption by the people at the general election to be held in November, 1960.

NOTE: See Water Code, Chapter 1762, Statutes of 1959. Also see Supplement

(h) Contracting Principles and Prototype Contract

Prior to the election of November 8, 1960, the Governor had enunciated the contracting principals desired to be followed in water supply contracts. On November 4, 1960, the State of California and the Metropolitan Water District entered into a Water Supply Contract conforming to the Governors Contracting Principles which required that all other contracts be essentially similar.

Excerpts from the Governors Contracting Principles are reproduced as follows: Taken from a statement made by P. A. Towner, Chief Counsel of the Department of Water Resources to the Assembly Interim Committee on Water, July 18, 1960, in Santa Monica, California.

4. ORIGIN OF AVEK (continued)

(h) Contracting Principles and Prototype Contract (continued)

1 Cost allocations shall be on the separable costs-remaining benefits basis for multi-purpose facilities and on a proportionate use basis by areas for water transportation facilities.

2. For purposes of project commodity pricing, costs will be allocated among water supply, flood control, recreation, enhancement of fish and wildlife, drainage, quality control, and such other functions as may be authorized and performed by the particular facility or facilities under consideration.

3. Rates for water and power and for other reimbursable items will be established so as to return to the State all costs of project operation, maintenance and replacement, all principal and interest on (1) bonds, (2) expenditures from the California Water Fund, and (3) other monies used in the construction of the project works. Those costs declared by the Legislature to be nonreimbursable and the federal contributions for flood control and for other items will not be included in the rate structure.

4. The project will require more power for pumping purposes than it will produce. Power required in the operation of the project must be paid for by the water users whether it is obtained from project or nonproject sources. Therefore, the costs of the project facilities producing the power is properly a cost of water supply and in the project cost allocation no separate allocation of the capital costs of power facilities will be made. The capital cost of power will be included in the costs allocated to water supply. The difference between the actual cost of power, that is, the amount necessary to repay the capital and operation and maintenance costs of the power facilities, and the market value of the power provides an economic benefit. A cost allocation study will be made with reference to power facilities for the purpose of determining the economic benefit to be derived from the use of project power for project purposes. In addition, to the extent that from time to time any power is available for sale, it will be sold at its market value. Preference will be given to public agencies in such sale as required under existing law. The difference between the actual cost and the market value of such power will result in income to reduce project costs. This added income (power credit) will be applied, and the computed economic benefit will be made available, to reduce the cost of project water except for water used on land in single ownership in excess of 160 acres (320 acres in the case of community property).

5 Under the Delta Pooling Concept, there will be a single price for state project water at the Delta and for state project service areas above the Delta which will be referred to as the Delta Water Rate. The Delta Water Rate* will consist of an annual (1) capital cost component, (2) necessary minimum operation, maintenance and replacement component; and (3) an operation and maintenance component which will vary with the amounts of water furnished.

The Delta Water Rate* will be based on the cost of construction and the cost of operation, maintenance and replacement of these conservation facilities allocated to water supply upstream from and within the Delta.

* Redesignated in the draft of proposed form of Contract as "Delta Water Charge".

The capital cost component and the minimum maintenance and replacement component will be collected irrespective of the amount of water furnished. The operation and maintenance component will be collected from the contractors receiving water in proportion to the amount of water furnished. Increases and decreases in the capital cost component of the Delta Water Rate* will be made from time to time to reflect the then outstanding unpaid reimbursable cost incurred in the construction of facilities necessary to make water available at the Delta.

6. Those contracting for water from a project aqueduct will pay, in addition to the Delta Water Rate*, a charge herein referred to as the "Transportation Rate **." The Transporation Rate will consist of an annual (1) capital cost component, (2) necessary minimum maintenance and replacement component, and (3) maintenance and operation component which will vary with the amount of water furnished.

The capital cost component, and the minimum maintenance and replacement component will be allocated to service areas by reaches of aqueduct, using the proportionate use method of cost allocation and will be collected annually irrespective of the amount of water furnished.

** Redesignated in the draft of proposed form of Contract as Transportation Charge

(h) Contracting Principles and Prototype Contract (continued)

The maintenance and operation component which varies with the quantity of water delivered will be computed for the same reaches of aqueduct as used for the other components of the Transportation Rate and will be allocated among, and collected annually from, the contractors receiving water in proportion to the amounts of water received. Provision will be made for reserve funds to be used for the purpose of meeting large, unforeseen cost of operation and maintenance, repair and replacement of works.

The total annual charge to project water contractors will be the sum of the Transportation Rate** plus the Delta Water Rate*.

7. The following is a breakdown of the Delta Water Rate* and the Transportation Rate**. The Transportation Rate** is stated for reaches of the aqueducts where the rate will be set by reaches. These rates are based upon estimated costs. Provision will be made in the contracts for revision of the rates when actual costs become known:

8. Contracts for dependable water supply shall be for at least 50-year terms, but shall contain provision for changes in rates and operating provisions. Upon expiration of the term of the contract, the contracting agency shall have the option of continued service on terms and conditions prescribed by the State, but at no greater cost than would have been the case had the original contract continued in effect. Should the terms and conditions provide for the furnishing of such continuing water service for only a specified period of years, the contracting agency shall have a like right to continued service at the expiration of such succeeding term during which it was receiving project water.

9. To insure continuity and dependability of water supplies the contracts will provide:
   (a) That contracts for dependable water supply will aggregate no more than a stated amount based upon the yield of the project. This amount, which will be approximately 4,000,000 acre-feet annually, is to be increased by the yield due to added storage facilities when and as constructed. In addition, contracts may be executed for interim or nondependable water supply subject to reduction or termination by the state at any time.
   (b) For the furnishing of stated maximum annual amounts of project water. The time and rate of furnishing of water delivery during any year by the State will be pursuant to schedules and amendments thereof submitted by the contracting agencies for such year. The State will comply with such schedules consistent with its delivery ability taking into account all such schedules submitted by agencies entitled under contract to a dependable project water supply.
   (c) That in the event of a shortage in the dependable project supply available in any year for export, project water will be prorated among all export contractors; each contracting agency will receive an amount of water which bears the same relationship to the available supply, computed on the same basis as the project yield studies, that the amount called for in the agency's contract for a particular year bears to the total amount of water required to be delivered pursuant to all contracts in the respective year. However, the Department will reserve the right to prorate on some other basis if required to meet necessary demands for domestic supply, fire prevention, or sanitation in the respective year or season.
   (d) That bond funds will be used to construct added storage facilities and related facilities for local needs to meet commitments to export from the Delta to the extent that California Water Fund monies are used for construction of the original facilities and to the extent such added construction is required by virtue of a reduction, occasioned by operation of area of origin statutes, in the amount of water available for export. This will be subject to the proviso, however, that to the extent that the Director at any time after 1985 finds that any such funds are not then required to meet such reduction and will not be required for such purpose within the next succeeding 10 years, any such funds may be used for the construction of added storage facilities to meet increased demands for export to or from the Delta and to meet local needs.
   (e) That the State will plan the availability of water from the Delta so that deliveries can be made at the time and in the amounts scheduled in the contracts. To the extent possible, five years notice shall be given of any reduction in deliveries which will occur as a result of operation of area of origin statutes.

10. Construction of any transportation facility financed wholly or in part through the sale of bonds, will not be started unless water service contracts have been executed which will insure recovery of at least 75 per cent of the cost of such facility.

4. ORIGIN OF AVEK (continued)

(h) Contracting Principles and Prototype Contract (continued)

11. Local contracting agencies may make funds available for construction or completion of construction of initial or ultimate facilities and will be credited to the extent of such contributions.

12. As a general policy, contracts for project water will be excuted with public agencies having the taxing, assessment or equivalent power and all other powers required in order to comply with the terms of the Contract. Contracts will be executed with others not having the taxing, assessment or equivalent power only when the State can be provided with security sufficient to insure that the obligations incurred will be paid.

13. Each contracting agency will agree that, in the event in any year it is unable or fails through other means to raise the funds necessary in any year to pay to the State the sum required under the contract, it will use its taxing or assessment power to raise such sum.

(i) Need for Local Water Agency

The Antelope Valley-East Kern Water Basin Association learned that if the California Water Plan (Chapter 2053, Statutes 1959) and the Burns-Porter Act (Chapter 1762, Statutes 1959) were to be passed by the Legislature, that the general obligation bonds proposed to be issued to finance the State Water Project would have to be largely underwritten by contracting agencies having taxing powers.

This meant that local agencies would have to be created having sufficient powers to not only contract with the State for supplemental water but to finance and construct a distribution system needed to utilize the water and enhance the economic growth of the area.

(j) Municipal Water District Act of 1911 (Act 5243, Statutes 1911, Chapter 671)

NOTE: Now Division 20, beginning with Sec. 71000 of the Water Code, State of California.

The Antelope Valley-East Kern Water Basin Association carefully reviewed the statutes to find an appropriate legal vehicle in existing statutes to serve as the local water agency. The Association sought the advise of authorities in water district administration to determine boundaries and to recommend an appropriate law. The Antelope Valley-East Kern Water Basin Association finally concluded that the Municipal Water District Act of 1911 should be used. This act had been extensively and successfully used in California. Such districts could contract with the State and if necessary become members of the Metropolitan Water District of Southern California.

The Association did not want to preclude this possibility if by joining the Metropolitan Water District any advantage would accrue to the area.

Petitions were authorized by the Association to be prepared and circulated.

(k) Letter from Harvey O. Banks, Director, State Department of Water Resources, April 19, 1959 (See following page)

HARVEY O. BANKS
DIRECTOR

EDMUND G. BROWN
GOVERNOR

ADDRESS REPLY TO
P. O. BOX 388 SACRAMENTO 2
1120 N STREET HICKORY 5-4711

STATE OF CALIFORNIA
Department of Water Resources
SACRAMENTO

April 19, 1959

Mr. R. B. McNutt, President
Antelope Valley-East Kern
Water Basin Association
P. O. Box 884
Palmdale, California

Dear Mr. McNutt:

In response to the letter of April 17, 1959, from Mr. Robert J. Aikins, Executive Vice-President of your Association, concerning the proposal to form the Antelope Valley-East Kern Municipal Water District (1911 Act), I would like to stress the importance of early formation of such an over-all district in order that there will be in existence a master agency to negotiate and contract with the State for water service from the east branch of the San Joaquin Valley-Southern California Aqueduct System.

As you are no doubt well aware, this Department has finished its studies to determine the optimum system of aqueducts to serve that portion of the State lying south of the east-west extension of the north line of Kern County. We have concluded that this aqueduct system should include an easterly branch extending to and through the Antelope Valley-Mojave River area and on into San Bernardino and Riverside counties, terminating at Perris Reservoir in Riverside County. We have also concluded that supplemental water should be available for service in the Antelope Valley-Mojave River area in 1971. Actually, of course, supplemental water could well be used in this area at a much earlier date, but even our expedited construction schedule cannot finish the facilities necessary for importation of water before 1970 or 1971.

However, before we start any actual construction or even finish the final design, it will be necessary for us to determine from the local areas to be served, such as the Antelope Valley-Mojave Area, the amounts of water for which each area desires to contract, the repayment and pricing schedules to be incorporated in the contract, and other similar matters. Such information should be available within the next two years at the outside. A master agency

covering the entire area concerned will be of great help in the studies and negotiations which will be necessary as prerequisites to these decisions.

Also, it is anticipated that the State budget for fiscal year 1959-60 will contain sufficient funds to complete the acquisition of the lands, easements and rights-of-way needed for the entire San Joaquin Valley-Southern California system, including the east branch through the Antelope Valley-Mojave River area. Acquisition of such lands, if the budget is finally approved by the Legislature, will start as soon as possible after July 1, 1959.

The Department of Water Resources desires to start negotiations with local agencies regarding future water service early in fiscal year 1959-60 in order to develop the information necessary so that we can proceed expeditiously with land acquisitions, final design, and actual construction. In view of the urgent necessity of importation of additional water into your area, as well as to others in southern California, and the time required for final design and for actual construction, it is imperative that these negotiations proceed rapidly.

For the above reasons, again I would strongly recommend that you proceed promptly and rapidly with the formation of a master district covering the geographical area to be served with imported water such as the proposed Antelope Valley-East Kern Municipal Water District.

I also point out that such a district will be necessary not only in negotiations with the State but also in making the necessary local investigations and engineering studies, the financial arrangements, and in constructing the facilities required for distribution of the water within the concerned area. A multiplicity of local districts acting independently will not, in my opinion, be able to effect economical distribution of water through an area as large as the one you are considering.

If we can be of further assistance to you, please do not hesitate to call upon us.

Very truly yours,

HARVEY O. BANKS
Director

(Copied 7-9-64/gc)

4. ORIGIN OF AVEK (continued)

(I) Senate Bill 1068, 1959 Legislative Session

Opposition to boundaries of the Antelope Valley Municipal Water District, after petitions were prepared for circulation, caused the association to present a proposal to the Legislature as an amendment to SB 1069 for the creation of the Antelope Valley-East Kern Water Agency.

Following is the "Statement of Need and Justification for Enactment of Legislation to Create the Antelope Valley-East Kern Water Agency", adopted by the Association on May 21, 1959.

STATEMENT OF NEED AND JUSTIFICATION FOR ENACTMENT OF LEGISLATION TO CREATE THE ANTELOPE VALLEY - EAST KERN WATER AGENCY

(An Act based largely upon the provisions of the Municipal Water District Act of 1911, Statutes 1911, Chapter 671, page 1290, and as amended)

The legislature is requested to create an Agency consisting of approximately 2500 square miles including territory both in Los Angeles and Kern Counties as shown on the attached map to serve as an entity capable of managing those water problems involved in importing water from the Feather River Project of the California Water Plan and the delivery thereof to all areas and inhabitants within the Agency boundary for irrigation, domestic, fire protection, commercial, industrial and public uses.

Because of the largeness of this area, its present state of development, and its prospects for future development, it is deemed to be necessary to create an Agency empowered to do the following:

1. Contract with the State to effectuate and extend the California Water Plan wit... the boundaries of this proposed Agency by contracting to receive water from the State when it is appropriate to do so and to immediately and authoritatively make firm commitments to the State as to quantities of water required and to times of delivery thereof.

2. To construct facilities at the expense of the Agency or portions thereof necessary for conveying water to the water service agencies within its boundaries and to sell water so delivered at equitable rates to the various water service agencies and inhabitants.

3. To enter into contracts with other political subdivisions of the State and agencies of the government as may be necessary in developing, conserving, treating, reclaiming and utilizing water from any source.

4. To recharge ground water basins with reclaimed flood or imported water by spreading, sinking, conserving and storing and to extract therefrom such waters for beneficial uses.

5. To construct facilities necessary for the treating, transporting and distributing water, recharging of ground water basins, storage reservoirs for and conservation of storm waters, to construct facilities which would protect lives and property from flood water damage.

6. Provide for financing, maintenance and operation of the activities and facilities of the district as well as to provide for the financing of improvements.

The attached addition to the water code would create an entity peculiarly adapted to the situation existing in the Antelope Valley-East Kern Water Basin.

Most of the provisions mentioned above are included adequately in the Municipal Water District Act of 1911. However, features are included in this Act which are not deemed appropriate or operative in this area. These features which are necessary for a generalized district applicable throughout the State have been excluded from the proposed Antelope Valley-East Kern Water Agency. Any attempt to create a Municipal Water District as it is now written will meet with opposition, will not be satisfactory to all parties, and will not adequately accomplish the purposes desired.

It is imperative that an Agency be created at this session of the legislature in order to implement the California Water Plan and to schedule engineering and technical work which must be performed by this large service area in time to coordinate and plan its water requirements with the plans of the State Department of Water Resources as embodied in Bulletin No. 78, involving the Antelope - Mojave service area.

4. ORIGIN OF AVEK (continued)

(I) Senate Bill 1068, 1959 Legislative Session (continued)

The Antelope-Mojave service area as described in Bulletin No. 78 comprises 7600 square miles. This extremely large area may logically be divided into two portions along the San Bernardino County boundary, since this boundary closely follows ground water sub-basin boundaries.

The matter of recharging the ground water basins by the proposed Antelope Valley-East Kern Water Agency would not conflict with any ground water basin recharging projects of the proposed water agency for the remaining portion of the large service area which has been submitted as Senate Bill No. 1068.

The Antelope Valley-East Kern Water Basin Association representative of all areas of the Antelope Valley and East Kern areas, supports this measure and deems it to be the best solution offered after extensive study for providing supplementary water, in an organized manner, for this area.

It is the belief of this Association that this measure will provide the most equitable means of financing improvements and apportioning all costs in the delivery of water to the various areas of this 2500 square mile area.

R. B. McNutt, President
Antelope Valley-East Kern Water Basin Association
April 21, 1959

4. ORIGIN OF AVEK (continued)

(m) Senate Bill 1068 Enacted Into Law

AVEK was enacted into law after hearings on the boundaries were held before the State Assembly and Senate and the boundaries fixed. The law became effective on September 20, 1959.

(n) Annexations and Exclusions

Since the Agency was organized, lands have been annexed to AVEK and some parcels have been withdrawn.

Following is a chronological tabulation of annexations and exclusions from AVEK:

ANNEXATIONS AND EXCLUSIONS

Designation	Date	Area	Class
AVEK	9-20-59	1,355,100	
Hoffman	11-14-61	3,200	Uninhabited
Ana Verde	12-1-61	160	Exclusion
Acton	4-24-62	48,160	Inhabited, election
Sun Village	7-24-62	9,600	Inhabited, election
Desert View Highlands	7-30-62	1,048	Uninhabited
Kinsey	1-22-63	21,187	Uninhabited
Tejon	1-22-63	59,288	Uninhabited
El Dorado-Westside Park	5-14-63	1,040	Exclusion
Kinsey No. 2	10-22-63	2,198	Uninhabited
Three Points	11-26-63	4,700	Inhabited, election
TOTAL	5-12-64	1,503,281	

AREA

Units of Measure	Los Angeles County	Percent (%)	Kern County	Percent (%)	Total
Acres	652,561	43.4	850,720	56.6	1,503,281
Square Miles	1,020		1,329		2,349

(o) Map of Annexations and Exclusions

Attached is a map showing the original boundaries of the Antelope Valley-East Kern Water Agency. Subsequent annexations and exclusions are also indicated thereon. (Next Page)

5. WATER SUPPLY CONTRACT BETWEEN AVEK AND DWR

(a) AVEK Eligible to Obtain a Contract (Feasibility Report)

AVEK negotiated with the DWR to obtain a water supply contract pursuant to the California Water Resources Development Bond Act. The DWR prepared a study of the agency culminating in publication of a "Feasibility Report" showing that it was feasible for AVEK to enter into a contract with the State for the delivery of 120,000 acre feet of water annually. This report was the first of the Feasibility Reports prepared by the State to determine the legal and financial capability of a water agency in entering into a contract with the State.

(b) Water Supply Contract Signed

On September 20-21, 1962, AVEK entered into a contract for a supplemental water supply with the State Department of Water Resources.

At the Contract signing ceremony held in Lancaster on September 21, 1962, Mr. William E. Warne, Director of the Department of Water Resources stated,

> *"With rare foresight, drafters of the agency act gave the Valley a water organization that is workable and a financial backbone that is strong enough to carry the weight of administration, engineering and construction which the Valley must take upon itself in the years just ahead and far into the future."*

(c) Contract Validated

On October 15, 1963, the contract was found to be valid by the Superior Court, State of California.[1]

6. GOVERNMENT OF THE AGENCY

(a) Governing Body

The Board of Directors is the governing body of the Agency. Each Board member, whether appointed by the Governor or elected by the people, is subject to recall by the voters of the Agency. The Board is required to act only by ordinance, resolution or motion. No ordinance, resolution or motion may be passed or become effective without the affirmative vote of a majority of the members of the Board.[2]

(b) Officers of AVEK

AVEK is required to appoint by majority vote a Secretary, Treasurer, Attorney, Chief Engineer, General Manager and Auditor. The positions of Chief Engineer and General Manager may be consolidated, and the positions of Secretary and Treasurer may be consolidated.

(c) Powers and Purposes

Reference is made to the Supplement (Page S-23) wherein Section 61 of the "Antelope Valley-East Kern Water Agency Law" is reproduced.

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[1] *Action for validation of the State Water Contract. Superior Court of the State of California No. 820996, Resulting in a Judgement by the Court Validating the Contract.*

[2] *Section 51, 52, 53, 54, 55, 56, 57, and 58 of Antelope Valley-East Kern Water Agency Law.*

7. BOUNDARIES OF AVEK RELATED TO WATER BASIN

(a) Assumed Hydrologic Unit

AVEK, when organized, was intended to include substantially all of the inter-related ground water basins in Antelope Valley and East Kern areas. It was assumed that the lands within the Antelope Valley-East Kern Water Agency formed a logical hydrologic unit which would be substantially benefitted by the importation of water as a supplement to the ground water resources.

(b) Testimony Relating to Water Basin Boundaries

(1) JOSEPH A. KENLEY

On the matter of water resources, a question has come up among the people in my community, North Edwards. They are under the impression the AVEK will have complete charge of all the water resources in the Antelope Valley as to who can and can't pump water for domestic purposes, etc., and that may or may not be true, but I can't understand why a community like ours which is going through the agonizing process right now of replacing our distribution system at a cost of something like $100,000 and are being taxed pretty heavily the past 3 or 4 years and will be for the next four years, I would like to reassure these folks that when our system, and we have a distribution system which is reliable, we are not going to have to have permission from somebody else to pump water for distribution. Can you give me any comment on just how much power these people are going to have?

(2) W. B. CARTER

This is a very complicated question which the State Assembly Interim Water Committee studied for the whole of last year. This legislative committee held hearings all over the State of California on this subject and many reams of testimony was heard. They were doing this for the purpose of finding out or determining whether or not the State should preempt control of all basins. I attended some of these meetings and listened to considerable testimony. After these meetings were held and all the testimony had been taken the Committee decided that the control of our ground water basins and the protection of our ground water basins against their ruination or overdrafting should be in the hands of the local agencies. Therefore no legislation was introduced in the last session of the legislature which would change the position of the State. Now the protection which we have (we are in the same situation in Lancaster where I live as you are) we are taking our water from underground and we would look with considerable disfavor upon a regulatory situation which would in any way stop our use of our underground waters until another source is available to us at least. We would feel that we probably would be more in favor of a local control to which we were closer than to have state legislation which would place the control of all the basins in, possibly, the Department of Water Resourses. I can't honestly tell anybody that we will not eventually see some kind of ground water basin control. I wouldn't want to make that statement, but I think the position I would take, and I am expressing my own feelings in the matter and this may not be the feeling of the Board, that I would much prefer a strong local entity in which I had some say in the election of Directors to be in a position of adjudicating the ground water basin then I would to have it in the hands of an impersonal agency controlled by the State government. That is just my opinion and there's a lot of argument one way or the other. I think in answer to your question, you should have no fear that AVEK will prevent you from pumping - they do not have that much power, and that is about the best I can do.

(3) LEE C. DUTCHER

In testimony given before the Advisory Committee on January 21, 1964, Mr. Lee C. Dutcher stated, "I have noticed a large map across the room and just a glance shows that somebody in this Agency already has a considerable knowledge of the ground water features of this area; this knowledge was needed just to select the boundaries of this water agency. A great deal of attention has been paid to the physical and geological features of the area. The boundaries of the agency do fit very well the natural divisions of this part of the desert area." Later in his January 21, 1964 report, Mr. Dutcher stated, "The Antelope Valley-East Kern Water Agency encompasses almost all of two large drainage basins, called the Antelope Valley basin, including part of this area near Rosamond (pointing to map), and the Fremont Valley drainage basin which is tributary to Koehn Lake.

7. BOUNDARIES OF AVEK RELATED TO WATER BASIN

(a) Assumed Hydrologic Unit

(3) Lee C. Dutcher Testimony (continued)

"These two combined basins encompass a total area of approximately 3,300 square miles, of which approximately 2/3 is in Kern County and 1/3 is in Los Angeles County.....The area is subdivided by faults into several groundwater units. For purposes of definition, we are calling the principal basin the 'Antelope Valley Basin' and the 'Fremont Valley Basin,' each of which, when our final interpretation of the geologic structure is completed, will show several groundwater basin sub-units. Individual names for these sub-units are not of critical importance to us here--the largest sub-unit is known as the 'Lancaster groundwater sub-unit' in Antelope Valley; Neenach sub-basin has been referred to in the literature, as has the Littlerock Creek sub-basin, the Koehn Lake sub--basin, the Chaffey sub-unit, the Willow Springs sub-unit, the North Muroc sub-unit, and several smaller sub-units such as the Peerless sub-unit north oi Boron. Now I haven't counted them, but there must be at least 15 to 20 groundwater sub-units in these two groundwater basins.

"Before I go on to discuss the conditions of ground-water flow in the area, I would like to summarize the ground-water conditions and movements under natural conditions before man developed the area. In the ground-water and surface-water basin (Antelope Valley and Fremont Valley basins), we have not found water that enters the system or leaves the system from any source outside of the basins. In the natural system there is some sub-surface interchange of water between the two surface-water basins, beneath a surface-water divide between Desert Butte and Castle Butte through a narrow notch north of Highway 466 north of Rodgers Lake. Under natural conditions before development by man, there was an extensive area of swampy land in the lower part of the basins where the water table was above the surface in the vicinity of Rosamond Lake and the south side of Rodgers Lake. There was some ground-water movement through the narrow alluviated notch north of Rodgers Lake to the Fremont Valley basin, where there was an extensive area of wet lands and water evapotranspiration in the vicinity of Koehn Lake.

"Ground water is principally recharged by percolation from streams, which drain the bordering uplands. These streams, such as Rock Creek and Littlerock Creek, and others which flow from other smaller canyons around the periphery of the area, enter the valley after periods of precipitation. Water from the streams percolates to the water table where it moves generally toward the dry lake to be evaporated.

"Since it was discovered during the latter part of the 19th Century that wells drilled to depths of 200 feet or greater yielded flowing water in the area south of and surrounding Rosamond and Rodgers Lakes there has been a continuous history of developing and using water for irrigation and domestic supply in this valley. Originally, and based on the records collected by Johnson, the extent of the area within which artesian wells could be drilled was about 240 square miles. This area was in the lowest part of Antelope Valley; there was a smaller area in the lowest part of Fremont Valley where flowing wells were also drilled. Since that time there has been a continuing decrease in this area until, if my memory serves me correctly, 1953, when the last well on Rosamond Lake ceased to flow. Our well-measuring program, carried on in cooperation with the Air Force, the State of California, and others, has indicated that there have not been any artesian wells in this area since 1953. In the low part of Fremont Valley, however, there is still a small artesian flow of water from wells near Koehn Lake.

"Our preliminary appraisal of ground-water recharge to the area, and the estimate by others, including the Department of Water Resources and studies at Edwards Air Force Base, indicate that the ground-water overdraft has been severe for many years. The whole area has experienced a history of water level decline, indicating that the annual use of water has exceeded the average annual recharge. On a long-term basis the average discharge was in balance with the recharge. When man began to drill wells and use water this natural balance with nature was disturbed--a new system of discharge was superimposed on the natural system. Water pumped is put to beneficial use--crops are grown, people are sustained, and the economy has kept growing nearly continuously since water was first used. Our preliminary estimates of recharge from all sources including surface-water runoff, based on analysis of the available data, indicate an order of about 70 to 80,000 acre feet a year. This, of course, means that the annual consumptive use of ground water as estimated by the California Department of Water Resources is more than the recharge. This condition of imbalance between recharge and discharge has been able to continue for many years because the initial supply of ground water in the reservoir was very large. However, this supply will not last indefinitely. Either the economic limit of pumping will be reached or the yield of the individual wells will decline drastically and pumping cannot be economically continued. The Agency has foreseen this, and plans to supplement the natural supply with imported water are being completed."

LETTER OF TRANSMITTAL

October 5, 1962

HON. JESSE M. UNRUH,
Speaker of the Assembly

MEMBERS OF THE ASSEMBLY
State Capitol, Sacramento, California

GENTLEMEN: The Assembly Interim Committee on Water submits herewith its report on Ground Water Problems in California. This report and the hearings which preceded it were authorized by House Resolution No. 179, 1961. Also included in this report are the committee's consideration of Assembly Bills 3042 and 1995 and Assembly Concurrent Resolution 120.

As more fully set forth in the body of the report and the Summary, your committee has thoroughly studied the legal, physical, economic management and other aspects of ground water management in California. No legislation is being recommended because the approaches to ground water management currently used in the State, when properly understood and applied, appear to be adequate. If specific problems arise in the future, legislation can be drafted to handle them at that time. In the meantime, your committee finds much progress is being made on ground water management and feels that state agencies, local districts and the public can gain further experience and make substantial progress from continuation of the present approaches.

This report is partially an educational document intended to explain ground water management problems for the Legislature and the public by evaluating the ground water management tools now available in California and by synthesizing the various technical disciplines involved into a comprehensive, integrated treatment of all facets of ground water management. From its two-year study, the committee concludes that local, basinwide districts can best replenish overdrawn ground water basins by using revenues collected through replenishment assessments (1) to finance purchase of water for spreading, (2) to equalize the burden of using high cost imported surface supplies with low cost ground water and (3) to transport surface supplies of water whenever ground water basins have inadequate transmission capacity. The objective is maximum utilization of the low cost ground water basins without destroying the basins.

Your committee wishes to express its appreciation to the numerous organizations, state agencies and to private citizens who have contributed generously of their time and talents. The chairman and the

committee wish to thank the committee staff, the Legislative Counsel Bureau and the office of the Legislative Analyst for their services.

Respectfully submitted,

CARLEY V. PORTER, *Chairman*
Assembly Interim Committee on Water

PAUL J. LUNARDI, *Vice Chairman*

JACK A. BEAVER
FRANK P. BELOTTI
JOHN L. E. COLLIER
MRS. PAULINE L. DAVIS
(With Reservations)
HOUSTON I. FLOURNOY
MYRON H. FREW
CHARLES B. GARRIGUS
VERNON L. KILPATRICK
FRANK LANTERMAN
HAROLD K. LEVERING
LLOYD W. LOWREY
ROBERT T. MONAGAN
EUGENE G. NISBET
JACK SCHRADE
HAROLD T. SEDGWICK
BRUCE SUMNER
JOHN C. WILLIAMSON
EDWIN L. Z'BERG

(d) Delivery Point of Imported Water to AVEK

AVEK has contracted to receive substantially all water at the Portal of the Tehachapi Tunnel. The water is proposed to be stored and treated near this point and transported through a distribution pipe network to areas when in need of water.

8. FINANCING AGENCY PROJECTS (From a Report to AVEK Finance Committee by R. G. Lunt)

June 1, 1964

(a) Review of Premise and Authority

The Agency law includes power for AVEK to acquire or contract to acquire water and water works systems and to operate them;[3] to construct and operate public recreational facilities operated or contracted to be operated by the agency;[4] to acquire, lease and operate water storage and transportation facilities and to sell water under control of the agency to cities, other public corporations and public agencies and to persons, corporations and private agencies;[5] to acquire, control, distribute, store, spread, sink, treat, purify, reclaim, recapture and salvage any water including sewage and storm water;[6] and to join with public corporations or other persons for the purpose of carrying out any of the powers of the agency.[7]

(b) Financing AVEK Share of the State Water Project

AVEK Law,[8] permits the Agency to contract with the State of California. A contract was signed September 20, 1962 with the State to obtain water from the State Project.

The decision of the Superior Court in validating the contract with the Metropolitan Water District removed any doubt as to whether or not that agency or other agencies could properly enter into a contract with the State for supplementary water. The Superior Court proceedings which validated the contract between AVEK and the Department of Water Resources removed any residual doubts. Thus, the Antelope Valley-East Kern Water Agency, in entering into a contract with the State for water, has incurred an indebtedness to the State. This became an obligation upon all taxable property within the agency. AVEK must levy a tax to meet payments annually allocated by the State to the agency pursuant to the contract. After a substantial quantity of water is received by AVEK from the State, fees from water sales may be used to assist in paying the State charges.

Under the contract with the State, charges will be levied for transportation costs and the Delta water charge. The transportation charge includes all facilities, reservoirs, aqueducts and pumping plants. These costs will be financed by the State by the sale of general obligation bonds as construction of the project proceeds. The State has additional authority under the Central Valley Project law to sell revenue bonds secured by the sale of power. The general obligation bonds will be secured by contracts with contracting agencies. Each issue of the obligation bonds sold by the State may run for 50 years from the date thereof and interest will be fixed on each issue by competitive bidding or negotiation. Thus, each issue will probably bear a different maturity and interest rate.[9] The first issue of $100,000,000 was sold February 18, 1964, at the interest rate of 3.51979%.

On May 5, 1964, a second issue of $50,000,000 was sold by the State for a net rate of 3.5329%. Cost estimates appear to have been based on 4% interest rates.

The final cost of the project will not be known until all bonds, necessary to complete the project, have been sold, the work has been completed, and the contract and administrative costs are finally determined. AVEK will be billed annually, payments may be made semi-annually.

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[3] *Antelope Valley-East Kern Water Agency Law, Act 9095, Statutes 1959, Section 61 (5)*

[4] *Ibid, Section 61 (5a)*

[5] *Ibid, Section 61 (6)*

[6] *Ibid, Section 61 (13)*

[7] *Ibid, Section 61 (14)*

[8] *Ibid, Section 61 (14)*

[9] *Water Code, Chapter 8, Water Resources Development Bonds, Section 12936*

8. FINANCING AGENCY PROJECTS (continued)

(c) Financing Local Projects of the Agency

The agency act provides the following means of financing:

(i) Short Term Promissory Notes

Issuance of Promissory Notes repayable within three years not to exceed $500,000 or 2% of the assessed valuation of the taxable property.

NOTE: The Municipal Water District Act of 1911 fixes the limitation at $1,000,000.

Probably the cheapest means of financing improvements would be through the issuance of promissory notes. This would permit the agency to spend $500,000 annually on public improvements to build segments of the distribution system as needed. Because of tax laws, banks can offer interest rates in the order of 2-1/2% for the use of money on short term basis. However, with the present assessed valuation of the agency, a $500,000 indebtedness in one year would require approximately a 30¢ tax levy. This would apparently violate Section 79 of the Agency Law.

There is some doubt that this means of financing could be used because of the provisions of Article 79 of the Agency Law which was amended in 1961 by Chapter 1624 to place a 10¢ tax rate limitation on the agency for general administrative purposes. Because of the wording of this amendment, there is the implication that general administrative purposes may include improvements. Agency attorneys are not agreed that the promissory note method of financing can be used for public improvements. To determine whether or not this is possible would require a court test case. If, however, it were feasible to use this provision and the ceiling was raised from the $500,000 limitation to $1,000,000 it would appear to be possible for the agency to finance projects of agency benefit by this method at the lowest interest rates currently available.

NOTE: The Agency issued promissory notes on August 9, 1963 at a net interest rate of 2.42%.

(ii) General Agency Tax

AVEK may include in its general taxes, costs of improvements if the total tax rate for general administrative purposes does not exceed the 10¢ per $100 assessed valuation.

(iii) Revenue Bonds

AVEK is authorized to use the Revenue Bond Law of 1941.[10] For example, revenues derived from the sale of water or from fees charged for the use of recreational facilities at reservoirs owned or operated by the agency could be used to assist in the financing of the distribution system or such reservoirs.

NOTE: Revenue bonds usually cost the Agency a higher interest rate and the Agency must raise, by taxation, the expenses for bond redemption in the event revenues are insufficient.

(iv) Improvement District Act of 1911

The Agency is empowered[11] to use the Improvement Act of 1911 for the construction of any facilities which the agency is authorized to construct. This act is widely used by municipalities and counties for street lighting, sanitary sewers, street improvements and water mains. A few complex projects have been financed under the Improvement Act of 1911. It is possible to assess separate charges for improvements which specifically benefit individual parcels of land as well as spread assessments over all lands for improvements which generally benefit the district. It is possible to put in a complete water system including meters wherein some parcels of land will not have meters installed or where the benefits greatly

[10] *Ibid., Section 61 (18)*

[11] *Ibid., Section 61 (19)*

8. FINANCING AGENCY PROJECTS (continued)

(c) (iv) Improvement District Act of 1911 (continued)

vary to lands within the Improvement District, and at the same time levy assessments in direct proportion to the benefits derived by each and every parcel. The procedures are rather simple.

The Board of Directors of this agency, after making a proper finding, may adopt a Resolution of Intention to perform the work and authorize the engineering staff to proceed with the work based on preliminary estimates of costs. Each property owner in the benefitted area must be notified by mail and hearings must be held on the proposition before the governing body of the Agency. If the Board finds from the hearings that it is necessary and convenient and in the public interest, it may order the work.

Notice must be given to the property owners by mail and publication. The governing body would advertise to receive bids on the work and award the contract to the lowest responsible bidder. When the work is completed by the contractor and accepted by the governing body, notices would be mailed to each property owner stating the amount of his assessment for each parcel of land. The property owner may pay the total amount of assessment within 30 days and thereby be relieved of future assessments or interest charges. Other property owners may allow the expense to become a lien against his property. The contractor would be the holder of the bond or lien on the property.

The life of the improvement bonds may be fixed to run for as much as 24 years. Thus, each individual property owner could pay off his assessments in 24 years in equal annual installments with interest at 6% payable semi-annually. (An alternate procedure permits taking bids on the sale of bonds which should reduce the interest charges.) The Improvement District Act has the advantage that the bond or lien on any parcel may be paid off at any time thereby relieving the property of the indebtedness and eliminating further interest charges. The Improvement Act of 1911 procedure has taken on new importance in financing public improvements as compared to issuance of general obligation bonds secured by an ad valorem tax on all taxable property.

Because of a recent Court case[12], it is now necessary to give notice by mail, to each property owner, of the hearing, on the proposition of incurring bonded indebtedness in an Improvement District. The procedural effort is almost as great under a general obligation bond election authorization and issue as under the direct assessment procedure.

(v) General Obligation Bonds

If the Board of Directors deems it necessary to incur bonded indebtedness for any of the work authorized by the Agency it may initiate the procedures for the issuance of bonds and must submit to the qualified voters of the agency the proposition of incurring indebtedness. By Resolution the Board must state the purpose of the proposed debt, the amount of debt to be incurred, the term of the bonds proposed to be issued, which may not run for more than 40 years, and the maximum rate of interest to be paid, which cannot exceed 5%.[13] Use of general obligation bonds of the agency should be employed only for the purpose of performing work of general agency-wide benefit. This is made clear by the Agency Law since it provides for the formation of Improvement Districts in which bonded indebtedness may be incurred on the benefitted property secured by taxes on all taxable property therein.

(vi) Formation of Ad Valorem Improvement Districts

When it is decided to perform any work permitted by the Agency, the benefits of which flow only to specific lands within the Agency which are less than the whole of any agency, bonded indebtedness may be incurred therein in the same manner and procedure as are described in Section 68 of AVEK Law. After such an Improvement District is so formed, other

[12] *Schrader vs. City of New York, 371 US 208*

[13] *Antelope Valley-East Kern Water Agency Law, Section 68*

8. FINANCING AGENCY PROJECTS (continued)

(c) (vi) Formation of Ad Valorem Improvement Districts

lands within the Agency may be annexed to the Improvement District whether such lands are continguous or not and those lands so annexed will share the indebtedness of the Improvement District. Improvement Districts may be formed for purposes other than for incurring bonded indebtedness which purposes would include maintenance of projects. For example, if the agency assumed the operation of a Mutual Water Company, an Improvement District could be formed for that purpose without incurring bonded indebtedness. Such an Improvement District could be formed for the maintenance and operation of a Flood Control Improvement District.

(vii) Miscellaneous Fees for Services

Under the Agency's contracting powers, it may adopt rules and regulations fixing fees for the sale and use of water and for services incidental to the operation of a water system. For example, fees could be collected for the installation of water meters and water main extensions under contract with public or private corporations or individuals and thus finance works of the agency. It is assumed that this method of financing would apply to the extension of small projects.

(viii) Plans of AVEK

The Agency has considered various means of financing the conveyance system needed to transport water from the State Project to communities within the Agency.[14] In this regard, AVEK has taken into consideration that the need of imported water will not begin at the same time in all areas, and reliance on the ground water reserves should be continued until it is advantageous to extend the conveyance system to supply those areas.

AVEK has also taken into consideration and evaluated the approximate time and need of delivery of water to areas which appear to be destined to develop into urban and industrial uses. AVEK has evaluated and compared the costs of possible conveyance systems which may be needed in 1990 to transport the ultimate supply and has compared the cost of one method with the other methods. The comparison includes cost of construction, cost of financing, and cost of operation. Because of this study, the Board of Directors has agreed to take delivery of water from the State Project near the portal of the Tehachapi Tunnel.[15] Final decisions in this matter may be altered pending the determination yet to be made by the State on the location of the West Branch Aqueduct and evaluating the costs of various methods of providing peaking storage capacity for the Agency.

The Agency is also considering the feasibility of providing its own peaking storage where other benefits from recreation may accrue to the Agency. Under the assumption that the Agency can provide its own storage reservoir, the Agency has assumed that the cost of financing this reservoir could be met through revenue bonds. The revenues would be derived from fees charged to the public for use of recreational facilities incidental to the reservoir and from revenues derived from the sale of water.

The Agency has adopted a policy consistent with the Agency Law to create Improvement Districts, either ad valorem or direct assessment, for the construction of the conveyance system. The Improvement District boundaries would be fixed to include the lands benefitted by the construction of a conveyance system. Such Improvement Districts would be established as the need for water from the State Project developed.[16]

It has been implied that formation of Improvement Districts would not be inconsistent with financing the same improvements through the Bureau of Reclamation.

Under the Bureau of Reclamation procedure indebtedness would be incurred with the government which would be an obligation of the Improvement District for the construction of the needed conveyance system.

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[16] *AVEK Reconnaissance Report, February, 1964.*
and R. G. Lunt Letter in Supplement of this syllabus.

8. FINANCING AGENCY PROJECTS (continued)

(c) Financing Local Projects of the Agency

(viii) Plans of AVEK (continued)

The procedure for forming Improvement Districts would also be used to localize the obligation to defray indebtedness for flood control work which may be performed by the Bureau of Reclamation. It is assumed that development of a Feasibility Report jointly by the Agency and the Bureau of Reclamation would be financed out of a tax levied on the entire Agency. It is also assumed to be equitable to levy a tax on the entire Agency to finance the cost of a contract entered into by the Agency and the United States Geological Survey.

Expenses incurred pursuant to such contracts may exceed, if necessary, the aforementioned 10¢ limitation.[17] If the Agency enters into a contract with the Bureau of Reclamation for the construction of the work, the contract would require approval of the electorate by a 2/3 majority vote. If the Agency should finance the improvements under the issuance of general obligation bonds either on the entire agency or upon an ad valorem Improvement District, approval by a 2/3 vote is required. If the Agency does not enter into a contract with the Bureau of Reclamation it has a choice of financing its improvements by issuance of general obligation bonds with the voters approval or use of the Improvement Act of 1911.

Certain areas in the Agency do not now enjoy an adequate ground water supply to support their continued growth and water from the existing ground water basin either must be imported to those areas prior to 1972 or the area cannot grow substantially. There is imminent danger that some areas which have been partially developed may suffer water shortages because of the lowering of the ground water levels caused by pumping. Temporary measures have been taken to resolve this matter in some areas but not all. It would be possible under the Improvement Act of 1911 or through the creation of an ad valorem Improvement District within the Agency to build segments of the Ultimate conveyance system for immediate use. For example, Leona Valley-Lake Hughes area, Desert View Highlands and Acton Area, Hi Vista and South Antelope Valley Area, Boron, Tehachapi foothills, etc.

(ix) Time Schedule Estimated by Bureau of Reclamation

AVEK is considering entering into a contract with the Bureau of Reclamation to jointly prepare a Feasibility Report.

Following is a letter estimating the time needed to make the report and start construction by the Bureau of Reclamation

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[17] *Antelope Valley-East Kern Water Agency Law, Section 79.*

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
SOUTHERN CALIFORNIA DEVELOPMENT OFFICE - REGION 3
568 MOUNTAIN VIEW AVENUE
SAN BERNARDINO, CALIFORNIA

IN REPLY
REFER TO:

MAY 7 1964

Mr. Randle G. Lunt
General Manager-Chief Engineer
Antelope Valley-East Kern Water Agency
554 Lancaster Boulevard
Lancaster, California

Dear Mr. Lunt:

Please refer to our letter of April 8, 1964, relative to a potential time table of events leading to initial project construction.

Recent information from our regional office indicates this time table to be understated by approximately 21 months. The review of the Regional Director's Proposed Report ordinarily requires a minimum of six months, which we originally included in the feasibility investigation time. In addition 12 months are required for the Commissioner to process the final report and obtain comments from interested state and federal agencies. Experience has shown that congressional action leading to authorization generally takes 12 months rather than 6 months.

For your information a revised approximate time table leading to initial construction is shown below:

	Approximate Minimum Time
Reconnaissance investigation	18 months
Feasibility investigation	15 months
Commissioner to review Regional Director's Proposed Report	6 months
Commissioner to process final report and obtain comments from state and federal agencies	12 months
Congressional action	12 months
Election in support of local agency	3 months
Validation of repayment contract	3 months
Preconstruction surveys; rights-of-way, surveys and acquisition; and field design	12 months
Issue specifications and request for bids	6 months
Review of bids and award of contract	1 month
Start construction	6 months
	94 months

Therefore, a total of 94 months under the best conditions would be required to complete investigation and initiate construction of the project. This shows the need to initiate engineering investigations this fiscal year.

Sincerely yours,

J. Earl Garner

Acting Area Engineer

9. OVERLAP OF THE KERN COUNTY WATER AGENCY UPON THE ANTELOPE VALLEY-EAST KERN WATER AGENCY

(a) Origin and Boundaries

The Kern County Water Agency was created by the Legislature on July 6, 1961, Chapter 1003, Statutes 1961, or Act 9098 of the uncodified acts. The Kern County Water Agency Law is a unique act. During the debate before the Legislature by proponents and opponents, the boundaries which were to have been established to exclude all lands above the 600 foot contour were altered

As an expedient to getting the law enacted, it was agreed that the boundaries would be coterminous with the County boundaries. The agency has broad powers. These powers are generally divided into two major categories.

(b) Taxing Powers Over Entire Agency Limited to 5¢

The Agency has the power to levy a tax upon all taxable property in the Agency, to pay the expenses, costs and liabilities and expenses of the agency to carry out the provisions of the Kern County Water Agency law, except that the aggregate of the assessments levied for any one fiscal year shall not exceed 5¢ on each $100 of assessed valuation.

The actual water service area of the Kern County Water Agency will include the service areas of unit members and zones of benefit only.

(c) Taxing Powers in Unit Members and Zones of Benefit (No Limit)

The agency has power of taxation in zones of benefit and within unit members in which there is no limit.

(d) Agency Activated September 26, 1961

The Kern County Water Agency was activated by a vote of the People on September 26, 1961. (25,810 for, 11,934 against)

(e) Agency Signed Contract for Supplemental Water 11-12-63

The Kern County Water Agency negotiated a contract with the Department of Water Resources and submitted the proposition of the contract to the voters on November 12, 1963, which carried by a majority vote. This contract contains provisions which are different from the proto-type contract with regard to surplus water and may require an amendment either to the Kern County Water Agency contract or perhaps many other contracts including the Metropolitan Water District contract.

(f) Tabulation of Voting Results in Overlapped Area

(See Next Page)

TABULATION SHOWING RESULTS OF ELECTIONS RELATING TO SUPPLEMENTAL WATER HELD IN THE OVERLAPPED AREA

ecinct No.	Precinct Name	ELECTIONS						Old Precinct No.
		1.75 Billion Dollar Water Bonds or California Water Plan 11-8-60		Activate Kern Co. Water Agency 9-26-61		Approval of Water Contract Between Kern Co. Water Agency and State 11-12-63		
		YES	NO	YES	NO	YES	NO	
28	Mojave East-Mojave South and Soledad	227	97	55	32	30	33	45
29	Joshua-Mojave North	226*	135*	68*	36*	52	51	43
27	California City	**	**	**	**	51	51	43
30	Mojave-Mojave West	197	86	72	33	51	55	44
31	Willow Springs - Tropico	169	96	47	1	36	22	47
36	Rosamond 1 and Rosamond 2	295	140	163	128	70	69	46
37	Rosamond 3 and Rosamond 4	118	73			51	46	
38	Amargo Group 1 and 2 (near Edwards)	287	160	98	51	33	86	37
39	Amargo Group 3 and 4	297	125	102	27	39	86	38
40	Boron	106	54	46	5	29	18	39
41	Edgemont Acres	170	81	57	7	31	59	40
42	Muroc	350	148	38	4	18	25	41
43	Red Rock Cantil	41	46	32	46	9	29	36
	TOTALS	2483	1241	778	370	500	630	
	GRAND TOTALS	3724		1148		1130		
	Percent	66.68	33.32	67.78	32.22	44.25	55.75	
		100%		100%		100%		
		Carried		Carried		Failed		

*Includes California City
**Included in Joshua-Mojave North

9. OVERLAP (continued)

(g) Allocation of State Project Water to KCWA Unit Members

The Kern County Water Agency contract with the Department of Water Resources entitles KCWA to one million acre feet of water. This water will be allocated and used in the actual water service area of the Kern County Water Agency. The actual service area will consist only of Unit Members and Zones of Benefit. This service area does not include all of Kern County. The Zones of Benefit and Unit Members are located in the San Joaquin Valley, the Tehachapi-Cummings Water District and in Ft. Tejon. None of the desert areas are entitled to receive water from the Kern County Water Agency, pursuant to its contract with the State.

While the agency as a whole is obligated to the State to pay capital costs of the State Water Project, KCWA looks to the Unit Members and Zones of Benefit now in process of being organized, to pay their apportioned share of the costs assessable by the State. It was necessary for the Kern County Water Agency to enter into its contract with the State before December 31, 1963, and at that time Unit Members or Zones of Benefit had not been formed.

However, there appears to be an understanding as to the number and Boundaries of Unit Members and Zones of Benefit. In receiving its first bill from the State, pursuant to its water contract, the Kern County Water Agency was required to levy a tax on the entire county since the Zones of Benefit were not created in time to assume this obligation. A County wide tax for the purpose of paying for construction of the state aqueduct may not be an equitable tax since it may not benefit areas outside of Unit Members and Zones of Benefit.

10. SEVERANCE

The Advisory Committee has been charged with the responsibility of recommending whether or not the lands within Kern County should be withdrawn from the Antelope Valley-East Kern Water Agency. Without attempting to establish a premise for this proposition the following is summarized to aid in considering this matter.

(a) AVEK Created in 1959

Antelope Valley-East Kern Water Agency was created in 1959 by an act of Legislature, and activated December 1, 1959.

(b) Voters in East Kern Area Supported Water Bond Issue

The people in East Kern area voted on the California Water Bond issue November 8, 1960 after Avek was created. The election carried by 66.68% for and 33.32% against.

(c) Kern County Water Agency Activated

The Kern County Water Agency was activated by a vote of the people on September 26, 1961 which carried by a vote of 67.78% for and 32.22% against in the overlapped area.

(d) AVEK–DWR Sign Contract Entitling AVEK to State Water

On September 20, 1962, the Antelope Valley-East Kern Water Agency entered into a contract with the Department of Water Resources pursuant to the California Water Resources and Development Bond Act, thereby incurring indebtedness upon all taxable property within the agency. The State Department of Water Resources considered the matter of the overlapping agencies and concluded that it did not interfere in any way with AVEK Water Agency entering into a contract.

(e) AVEK–DWR Contract Validated

On October 15, 1963, the Water Supply Contract between AVEK and the State Department of Water Resources was validated by the Superior Court and was not contested.

10. SEVERANCE (continued)

(f) KCWA Voted on a Water Supply Contract

On November 12, 1963, the proposition of whether or not Kern County Water Agency should enter into a contract with the Department of Water Resources to obtain water pursuant to the $1.75 billion State Bond issue was submitted to the voters of the KCWA. The proposition barely carried in the Kern County Water Agency and decisively failed to carry in the overlapped area. (See Tabulation of Elections, Page 30)

(g) AVEK Complied with Contract on Delivery Structures and Water Delivery Schedule

Provisions of the AVEK contract required this agency to submit before June 30, 1963, a schedule of delivery structures and a schedule for the delivery by the State of water to the agency beginning in 1972. Because the minimum project yield of 4,000,000 Acre Feet per year was not contracted for by June 30, 1964, the contract provides that before September, 1964, the agency may request an additional amount offered by the State. A revised delivery schedule of additional water, under the option provisions of the contract, was submitted by AVEK and has been approved by DWR. This increases the allocation to AVEK from 120,000 to 138,400 acre feet annually.

(h) Table of Anticipated Water Delivery Schedules.

ANNUAL ENTITLEMENTS

YEAR	YEAR NUMBER	MAXIMUM 120,000 ACRE FEET PER YEAR Present Contract	MAXIMUM 138,400 ACRE FEET PER YEAR March 1, 1964 Option	MAXIMUM 150,000 ACRE FEET PER YEAR Possible Option September 1, 1964
1	1972	20,000	20,000	20,000
2	1973	25,000	25,000	25,000
3	1974	30,000	30,000	30,000
4	1975	35,000	35,000	35,000
5	1976	40,000	44,000	44,000
6	1977	45,000	50,000	50,000
7	1978	50,000	57,000	57,000
8	1979	55,000	63,000	63,000
9	1980	60,000	69,200	69,200
10	1981	65,000	75,000	75,000
11	1982	70,500	81,300	81,300
12	1983	76,000	87,700	90,000
13	1984	81,500	94,000	98,000
14	1985	87,000	100,400	108,000
15	1986	92,500	106,700	115,000
16	1987	98,000	113,000	122,000
17	1988	103,500	119,400	129,000
18	1989	109,000	125,700	136,000
19	1990	114,500	132,100	143,000
20	1991	120,000	138,400	150,000

10. SEVERENCE (continued)

(i) **Severance and Re-allocation of Water.**

The matter of "severance" poses a real and significant problem to the Board of Directors in allocating water and establishing a delivery schedule for the Kern County and Los Angeles County segments of AVEK. The Agency staff is prepared to make recommendations to its Board if the matter of severance at the County Boundary or at the approximate boundary between the Antelope and Fremont Basins is proposed. (See Supplement, Randle G. Lunt letter to Al E. Skelton, President, AVEK, dated May 18, 1964.)

(j) **AVEK can Feasibly Deliver Water to Communities**

It has been shown to be feasible by AVEK to deliver State Project Water pursuant to the State schedule to communities within the agency in accordance with local demands. The plan appears to be flexible enough to adjust to changes in the timing and need for water. It suggests means of distributing water to areas remote from the point of delivery from the State Project in an equitable manner. That is, the cost of conveyance facilities would be paid for only by the areas benefitted.[18]

(k) **Adjudication of Water Rights and the County Boundary**

The report of the Assembly Interim Committee on Water suggests that determination of entitlement to use of ground water in an overdrafted basin may result in adjudication of water rights. This could eventually take place in the two major basins, namely, Antelope Valley and Fremont, because of the indicated overdraft. The two basins may be sufficiently interrelated to made it necessary, in case of an adjudication of water rights, for the Courts to find the rights of users in both major basins mutually adverse. The water basin straddles the County boundary. Water Basin management and rights adjudication requires that the County boundary be subordinated to the water basin boundaries.

(l) **AVEK has Exercised Its Powers in AVEK to Provide Water Service**

AVEK has exercised its powers to provide contractual services with the State pursuant to the California Water Resources and Development Bond act and is empowered to finance under various means, the construction of water conveyance systems and may perform any incidental function such as recapture, reclaim and salvage waste waters for beneficial uses including sewage effluent and storm waters for the protection of the agency or its inhabitants; to sell water to public agencies, individuals and private and public corporations.

(m) **Kern County Water Agency Does Not Intend to Infringe Upon AVEK**

The existance of KCWA does not impair or interfere with the responsibilities of AVEK. The testimony given by Mr. Dal Ogilvie, Engineer-Manager of the Kern County Water Agency before the Advisory Committee on November 5, 1963, is quoted as follows:

> *"There has been some talk about the service of water upon the desert from the Kern County Water Agency. AVEK is, of course, allowing some water of their 120,000 acre feet for the East Kern portion that is in AVEK's agency. Kern County Water Agency has no intent to infringe upon that at all. The only other way Kern County Water Agency could furnish water feasibly to East Kern would be through an exchange which was just mentioned by Mr. Skinner as being very improbable, with the Department of Water and Power of the City of Los Angeles and that Kern County Water Agency would arrange to take part of the capacity of their second barrel in exchange for State water which the agency would deliver where the two aqueducts cross, where the State aqueduct and the Owens Valley Aqueduct will cross. This could be arranged only if the agency treated the State water because Los Angeles does not have to treat their water that comes from Owens Valley at this time, and of course, the water that the agency would exchange would have to be of equal quality and it would have to be treated before it was put in their aqueduct."*

[18] *AVEK Reconnaissance Report dated February, 1964.*

10. SEVERANCE (continued)

(n) Severance by Legislature

Severance may be accomplished by an Act of the Legislature. Amendments may be initiated by the Board of the Agency by seeking, through one of the Representatives in the Senate or Assembly, to have a bill introduced which would exclude territory from the Agency. The bill proposal would describe the boundaries and propose a means of resolving the problems which would occur in the event of severance. For example, the allocation of water to the remaining agency and allocation of water to the area excluded.

The bill could be introduced in any Session of the Legislature; either in the Assembly, the Senate or both. After hearings are held by appropriate committees, the bill may be amended by either the Assembly or Senate or both. When finally an agreement by both houses is reached and passed, the bill would be sent to the Governor for signature.

(o) Severance May Be Initiated by AVEK Board or By Petition.

While AVEK Law establishes an orderly procedure for withdrawal of territory, no request has been filed with the board to cause "severance".

(p) Letters Indicating Some Views on Severance

i. Letter to Mr. W. B. Carter from W. J. Diffley, U. S. Borax & Chemical Corporation (Page S-90)
ii. Letter to Mr. W. J. Diffley from Mr. D. C. Sparling, Mojave Public Utility District (Page S-87)

11. WITHDRAWAL PROCEDURES

(a) AVEK Law permits Territory To Be Withdrawn

Withdrawal of territory from the Antelope Valley-East Kern Water Agency can be accomplished pursuant to Section 84 or 85 of the Agency Law.

(b) Letter to W.B. Carter from Sanford A. Waugh, Attorney.

Re: Letter to Mr. W. B. Carter, as Chairman of the Advisory Committee of the Antelope Valley-East Kern Water Agency, Pertaining to Procedures Under the Agency Law for Exclusion of Territory.

(See following page)

LAW OFFICES
WAUGH & WAUGH
44802 NORTH ELM AVENUE
LANCASTER, CALIFORNIA 93534
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WHITEHALL 8-1035

SANFORD A. WAUGH

ELIZABETH L. WAUGH

July 10, 1964

Mr. W. B. Carter, Chairman
Advisory Committee, Antelope Valley-East
Kern Water Agency
c/o Antelope Valley-East Kern Water Agency
554 West Lancaster Boulevard
Lancaster, California

Re: Provisions for Exclusion of Territory Afforded Under the Antelope Valley-East Kern Water Agency Law

Dear Mr. Carter:

It has occurred to me, as attorney for the Antelope Valley-East Kern Water Agency, that the Advisory Committee, of which you are Chairman, may want and should have, in connection with its deliberations, which involve among other things the question of possible severance of all or a portion of Kern County territory involved from the Antelope Valley-East Kern Water Agency, information concerning procedures established by the Antelope Valley-East Kern Water Agency Law itself to permit exclusion of territory. Information pertaining to this subject is accordingly submitted in the form of this letter addressed to you in care of the Agency for any use your Committee may desire to make of it. I know that your Committee has an impending deadline in connection with any final report prepared and this time element was also considered in determining to submit this letter for use by your Committee.

Section 84 of said Law, as amended, provides for exclusion of territory from the Agency under either of two methods, as follows:

Initiated by Petition:

(1) A petition fixing boundaries of the area sought to be excluded, signed by at least 25% of property owners in the area and at least 51% of registered voters therein, is filed, accompanied by a $1,000.00 deposit to cover expenses of the proceeding;

(2) If the petition is found by the Agency Secretary to be sufficient, a hearing is set by the Agency Board and public notice thereof is given; and

Mr. W. B. Carter, Chairman
Advisory Committee, Antelope Valley-East
Kern Water Agency
c/o Antelope Valley-East Kern Water Agency
554 West Lancaster Boulevard
Lancaster, California

Re: Provisions for Exclusion of Territory Afforded Under the Antelope Valley-East Kern Water Agency Law

July 10, 1964

(3) If the petition is granted by the Board after the hearing the exclusion of the territory involved is then submitted to the voters at an election.

Initiated by Resolution of the Agency Board:

(1) The Agency may itself initiate the exclusion of territory fixing the boundaries by a resolution;

(2) A hearing is held after public notice and the Agency Board may then determine by ordinance that the proposed area should be excluded; and

(3) In such event, the matter is then submitted to the voters at public election.

We trust that the foregoing information may be of some use to your Advisory Committee and in any event it will now be available in case it is required for any purpose.

Yours very truly,

Sanford A. Waugh

SAW:mb

cc: Mr. Randle G. Lunt

11. WITHDRAWAL PROCEDURES (continued)

(c) Lands Withdrawn Will Not Escape Contractural Obligations

"But the taxable property within such excluded area shall continue taxable by the Antelope Valley-East Kern Water Agency for the purpose of paying the bonded or other indebtedness of the Antelope Valley-East Kern Water Agency outstanding or contracted for at the time of such exclusion and until such bonded or other indebtedness shall have been satisfied, to the same extent that such property would be taxable for such other purposes if such exclusion had not occurred".[19]

Thus, should all or only a portion of Kern County be withdrawn from the agency it would continue to be subject to the obligation incurred by the agency pursuant to the State Contract and it would continue to be subject to taxes from the Kern County Water Agency as well.

(d) AVEK Board May Conduct Hearings And Order Election

If the AVEK Board of Directors found convincing evidence that all of the East Kern area, or a portion thereof, should not remain in the agency, withdrawal proceedings could be initiated by the Board by the adoption of a resolution describing the boundaries and requiring all persons interested in the proposed exclusion to appear before the Board and be heard as to why said territory should not be excluded. The hearing may be adjourned from time to time, and after the conclusion of the hearing, the Board may determine, by ordinance, that the area should be excluded from the Agency. The proposition may be submitted to the vote of the voters of the Agency. If a majority of the votes cast are in favor of the proposition, the lands would be withdrawn from the agency, but as stated before, would be subject to taxes levied by the Agency to meet contractual obligations with the State.

Thus, the withdrawn area would be assured of an entitlement of water and could devise some means of financing facilities for the transportation of water from either the AVEK system, from the supply available at the portal of the Tehachapi Tunnel, or perhaps from a Zone of Benefit in the Kern County Water Agency and receive water via the Tehachapi-Cummings route.

(e) DWR Approval Is Required To Modify Boundaries

Approval of the State is required for modifying boundaries of AVEK.

Following is Section 15 of a Water Supply Contract between the State Department of Water Resources and AVEK, dated September 20, 1962.

"(a) State Approval of Sale of Water by Agency Outside Boundaries

Project water delivered to the Agency pursuant to this contract shall not be sold or otherwise disposed of by the Agency for use outside the Agency without the prior written consent of the State.

(b) State Approval of Change in Boundaries or Organization of Agency

While this contract is in effect no change shall be made in the Agency either by inclusion or exclusion of lands, by partial or total consolidation or merger with another district, by proceedings to dissolve, or otherwise, except with the prior written consent of the State or except by act of the Legislature.

(c) Map of Agency

The Agency shall provide the State with a map satisfactory to the State indicating the major existing distribution facilities and the boundaries of the Agency at the time the contract is signed and supplementary maps whenever a boundary change is made."

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[19] *Antelope Valley-East Kern Water Agency Law, last paragraph, Section 84.*

12. AMEND THE AGENCY ACT

(a) Amend Law as an alternative to severance.

As an alternative solution to severance, amendment of AVEK Law was suggested.

(b) Reasons for Amendments to Agency Act as an Answer to Severance Not Specified

It appears left up to the Committee to establish reasons for the proposition of whether or not the agency should be severed in order to propose legislation as an alternative. Searching testimony for such reason we find the following:

(1) MR. SCHWABACHER: March 17, 1964, pages 12, 13, 14

"Mr. Chairman, I have a statement to make that might save us a lot of time and trouble. This gentlemen has just finished saying in great depth that we are an advisory board, and of course anything I say is merely as a member of this board, and the board can only say it as an advisory board. There seems to have grown up among the groups in the East Kern district the feeling that this board and the Los Angeles County portion of it in particular is dedicated to doing everything that it can to require the East Kern portion of the AVEK to remain within AVEK. Speaking for myself, I never had such a feeling, and although I don't know about the other members of the Board, I have never been conscious of it on their part. Perhaps you don't know how this AVEK was set up. Just briefly, as I understand from Mr. McNutt, the physical setup was at the suggestion of Harvey Banks, the prior head of Water Resources. It was suggested that this physical setup we presently have is an ideal one because of the geological and physical setup of the Antelope Valley and its environs. That's why this was set up to cover the area it covered, not because anybody was trying to drag the East Kern area in and make them the tail that wagged the dog, or anything of that nature. There was nothing sinister about it, it was done at the suggestion of a man who is considered to be about as brilliant in water resources as anybody in the State of California.

Again, speaking for myself, and I think possibly most of the members of the Los Angeles County side of the Advisory Committee, we have no desire whatever to keep the East Kern portion of this group within the AVEK against their wishes. None whatever. We are happy to see them go if they want to go. We have asked the Board's Attorney, Mr. Waugh, to come here tonight in case you gentlemen want to know the legal methods by which you may obtain exclusion from AVEK; but, if you have sat here for nine months, as some of the gentlemen from East Kern have, and listened to what has gone on here, and still say that you can see nothing to be gained by the purposes of AVEK.....How you can do this is past my comprehension. Furthermore, although you may have what you call a Major Tax Committee here, those are 15 companies. There are I don't know how many people in the East Kern portion, but I dare say it is probably close to 20,000 or 25,000. You don't represent them, and I don't think anybody sitting here will stand up and say that they do represent them. Nevertheless, it is my opinion at this time, and I hope that the other members of the L. A. County will go along with me, that if you can prove by the proper methods that you want out of the AVEK, that we will say to you, "Good. Go. We're not going to try to hold you here, we're not dedicated to keep you people within AVEK." It does not tax us any more for you to be in or out. We're not trying to keep you in to save us money. But I do say to you gentlemen who are so hasty and so determined to get out of AVEK, you had better remember the future.....20 years from now. You may think you have all the water you want, but you had better reflect on the burden that you will be carrying if you have no water 20 years from now and no way to get it, except perhaps to come back to AVEK and pay whatever they want to charge you to get in, or go the East Kern and get it up over the Tehachapis. I don't know, but if you gentlemen feel that you can do this, and you can convince the voters of such portion of Kern County as you want to take out of this district, I don't feel that this board has any desire to try to keep you in here, and I don't see any reason why we should sit and listen to a lot of speeches about why you should be allowed to get out and what dirty jobs have been done you, or how you've been misled or mishandled or anything. As I understand it, what you boys want is out, well Mr. Waugh is here, as I say, to tell you the methods you may follow to get out, and if you can take this to the voters of East Kern and they will back you up, then you have no problem. You're out. The whole controversy is settled. It's just as simple as that. So why should we spend a lot of time haggling about why you want to get out, or what you think has been done to you; if you want to get out, fine, go, but do it by the proper means, and do it with full knowledge of what you're getting yourselves into. Now it's just as simple as that, and I see no purpose for any reports in depth, from tax committees, or anybody else. What you want to

know is how to get out. Get out. Fine. There's Mr. Waugh. He'll now tell you the general methods by which you may get out."

(2) MR. DIFFLEY, March 17, 1964, Page 14, 15.

"May I ask a question, sir? My name is Diffley. I am from North Boron. So far, I haven't heard anyone say they wanted to get out of the agency. I am a member of the group that was just recognized as a major taxpayers group. We unfortunately, as a corporation, haven't had an opportunity to get all of our facts, figures, in order to have consultation by the people in our organization who know water, and we have a good many of them. We have ground water geologists, we have attorneys with considerable experience in water law, etc. We didn't make an effort to get these people involved in this problem up till now. The reason that we did not is that we would go along with the agreement that the Advisory Committee was doing the job. The only reason that we asked for information of what was the present status of this assignment was that the year was about half gone, and we got this report, and the indications were that to meet the deadlines established by Senator Stiern, we thought, there was an indication that you would have to expedite the program, and all we offered was our help in any way we could assist the Advisory Committee to do this. In Mr. Sturtevants's report just now, I didn't hear anybody saying, 'We want out,' I don't deny the fact that some of the people may have already made up their minds, but I would say the taxpayers group as a whole has not made up their mind that they want out, or that they want severance. They are still waiting for the recommendations of the Advisory Committee, and all they have suggested so far, as far as I know, is more study and offered their help to the Advisory Committee. Now, I haven't heard these other speakers, some of them may say that they have made up their mind, and tell us why. Maybe this will be information which the Advisory Committee will wish to consider, and maybe not, but as of now, I came over here to hear some of these things. Our group had a meeting yesterday, but we have longshoremen problems in our Industrial Relations Department - we haven't got the dock built from Wilmington to Boron yet - it is taking a lot of our time, and I couldn't make that meeting yesterday, so I came over tonight to hear what the situation was. And I think these people deserve a hearing. I don't know yet, unless you have some previous information, that the people are all going to say that they wish severance now and tell us why. I would like to wait until they do this, before we jump to this conclusion."

(3) MR. AMACKER, March 17, 1964, Page 21.

"The second question you are studying concerns the desirability of severing--or not severing--the East Kern portion of the Agency from the Los Angeles section. It was our committee which successfully argued last June for time to study this crucial step. Our overall view of the question must, of necessity, vary somewhat from the position of the East Kern Constituent group because several of our members are located solely in the Los Angeles area of the Agency or have holdings in both segments. However, as a committee we feel there is considerable merit to the case for severance and we would do nothing to prevent achievement of it should this prove to be the proper solution to the dilemma.

"We believe that impartial and unheated study may reveal that severance is equally desirable from the Los Angeles area point of view. It seems obvious that the Antelope Valley will need many of the services AVEK can furnish well in advance of the date East Kern will need them. With each section free to adopt its own tempo of development, controversy should be abolished and each area can then pursue its own objectives in peace. East Kern has the tax base to pay its fair share of the State Water Contract and has the ability to manage its own water future. Also, East Kern, should it sever, would be freed from the onerous situation of being a tax-contributor to two separate and distinct water agencies. By arrangement with the Kern County Water Agency, of which it is already a member, services could be obtained in exchange for its tax money.

"If this Advisory Committee were to devote a good share of its remaining time to a study of the question of severance so that a concrete recommendation can be included in its report to the Agency and the State Senate it will have performed a valuable public service.

"In order to avoid misunderstanding I should make it clear that the position I take here, on behalf of the committee, represents a consensus of the 18 taxpaying organizations on our Major Taxpayers Committee. All of us agree that severance may have merit for both segments of the Agency and all recommend you study the question carefully. But several of the companies on our committee feel even now that severance is the most equitable solution and will, at their own conveniences, so announce. The Monolith Portland Cement Company, owner of the Jameson Ranch which I represent, has already announced its position regarding severance, mainly from the view of the present conditions, it favors it.

"The third charge to this Advisory Committee concerns revising the Agency Act as an alternative solution to severing the Kern County area of the Agency. It is our opinion that some revision of the Act at the 1965 session of the Legislature is almost a certainty. For one thing, AVEK's counsel Ralph Helm wrote to Senator Stiern on June 13, 1963, and this letter

clearly indicates the Agency will seek further enlargement of its powers. This we will oppose. We feel the Act as presently written is too extreme in its delegation of powers and we would like to see some modifications, whether or not severance occurs. We will be especially alert to prevent--and will seek to prevent--any enlarging of the Agency taxing powers under Section 79 of the Act and will firmly pursue our position that this section says exactly what it was intended to say when amended in 1961 and that it means precisely what the Attorney General's letter of August 5, 1963, says it means.

"The entire question of the water future of Antelope Valley and the East Kern area provides a fruitful area of study for your committee. If severance is decided upon the divorce will probably be reinforced by specific action of the Legislature. This would provide, then an ideal opportunity to study improvements in the Act as it applies to Antelope Valley.

"I would like to emphasize the fact that our committee feel there is much studying to be done if you are to arrive at concrete recommendations before the designated reporting date of June 30. We stand ready, individually and as a committee, to make available to you any pertinent information we may have. We would like to reserve the right to submit to you an up-to-date brief on our position before your May meeting. I thank you for your kind indulgence and I shall be happy to answer any questions that you might have."

(4) MR. BYERS. March 17, 1964, page 24, 25, and excerpts from Bill of Particulars, 11 pages.

"A rapidly growing segment of the East Kern area of the Antelope Valley-East Kern Water Agency feels that steps should be taken soon to sever that Agency at the Los Angeles-Kern County line. Since the Antelope Valley-East Kern Water Agency Advisory Committee has been asked to study the question of serverance, among other things, we would like to tell you why we are suggesting severance as the best solution to the present controversy.

"One of the principal reasons severance arose at all as an issue at this time is the conduct of the Antelope Valley-East Kern Water Agency. It has displayed a cavalier attitude toward the taxpayers' money, showed callous disregard for the economic facts of life in East Kern County, cast covetous eyes on East Kern's ground water resources and its growing tax base, announced engineering plans based on erroneous and often capricious information, distorted many of the statements and positions of persons and organizations seeking information from it, employed taxpayers' money to publish a bulletin devoted largely to self-praise and has failed utterly to win the confidence of the principal taxpayers in either segment of the Agency.

"We believe that the Agency, which was created under conditions bordering on the conspiratorial, has arrogated to itself too many powers which it seems determined to exercise to the fullest regardless of need and hang the cost. That an Agency without one drop of water to its name -- and no supplementary water at all due to be delivered to it before 1972 -- could conceive during 1963 that it could justify a budget of $900,000 astounds us. That this same Agency could approve a budget of $300,000 during a year in which it had pledged to hold the line on taxes frightens us. That despite the expenditure of hundreds of thousands of dollars since its formation the Agency today has only "tentative" and "preliminary" plans appalls us. Much of the work already done is useless and very little of it need have been done at all for several years if the Agency had concerned itself with its chief reason for being which is the importation of supplemental water.

"It should be apparent on the most cursory inspection that the East Kern area has no need now or in the foreseeable future for flood control, reclamation, soil conservation or recreation services of the type being discussed and promoted by the Agency. It may be said that improvement districts may pay for these 'extras', but 25% of the cost of maintaining the wasteful paper-generating machine that dreams these things up is being borne by the taxpayers of East Kern County. We consider this a dissipation of public monies, expecially since Federal, State, County and private agencies already exist that can do all these 'extras' better than the Antelope Valley-East Kern Water Agency can do them. The one thing that the Agency can clearly do better than any other agency is to contract for and eventually provide imported water from the State Water Project. When the Agency strays from this requirement it not only exceeds the requirements of the entire Agency area, but the burdens thus imposed bear most heavily on the East Kern portion of the Agency which has no need for any of them and obtains no good whatsoever from them.

"The East Kern segment of the Antelope Valley-East Kern Water Agency cannot afford the extravagances that are a daily occurrence in the Agency, nor can it risk the setback to its hopes of economic growth that are implicit in the Agency's attitude toward the taxpayers' money. We believe equity requires that the agency be severed at the County line with the East Kern area, through a new Agency or in conjunction with the Kern County Water Agency, assuming financial responsibility for its 25% of the AVEK water allottment.

"This severance would also help to eliminate the present double taxation whereby the East Kern area is taxed by the Kern County Water Agency as well as the Antelope Valley-East Kern Water Agency. By contract with the Kern Water Agency we could well obtain services equivalent to the amount of taxes paid by our area.

"This summary letter is augmented with an attached recital that explores the issue and our area consensus more fully. We trust that you will study both of these documents carefully before drafting your final report.

Signed: The East Kern Constituency of the Antelope Valley-East Kern Water Agency.
(comprised of the California City Chamber of Commerce,
California City Community Services District
Cache Creek Mutual Water Company
Edgemont Acres Mutual Water Company
Jameson Ranch
Mojave Chamber of Commerce
Mojave Public Utility District
Rosamond Chamber of Commerce
Rosamond Water Company
Willow Springs Farmers for Severance.)"

EXCERPTS FROM BILL OF PARTICULARS:

"The immediate cause of the present controversy was a newspaper story which appeared in area newspapers in April reporting that the Agency Board of Directors was contemplating a 1963-1964 tax rate of 85-cents per $100 of assessed valuation as contrasted to a 1962-1963 rate of 16-cents per $100 of assessed valuation. This anouncement stunned civic leaders in the East Kern region and surprised major taxpayers with important holdings in both the Kern County and the Los Angeles County segments of the Antelope Valley-East Kern Water Agency. Reaction was immediate on the part of the Mojave Chamber of Commerce and its Industrial Action Committee, supported by the Mojave Public Utility District and by the California City Community Services District and an informal group of major taxpayers. The adverse reaction was intensified when Agency representatives explained that a major portion of the increased taxation was not to meet current or near term expenses but to establish a so-called Capital Accrual Fund which could be used later by the Agency to construct an elaborate water distribution system without the need of referring its program to a vote of the people as would be the case if bond issues were used for such financing.....

"Members of the Kern community groups and representatives of the AVEK Taxpayers Committee were quick to admit they did not understand the grandiose engineering and financial plans of an Agency which had no water to purvey and which, under the reasoning that led to its creation, should have no water to purvey until 1972 and then only that amount of supplemental water actually required by bone fide contractors.

"A recent Rand Corporation study of how American cities obtain and manage their water states in its preface. There is a certain temptation for water supply leaders to cast themselves in a heroic mold, as mighty battlers for the cause of pure and adequate water. To maintain the romance of this role great projects are continually being conceived, planned, and executed, some of these projects being sound, other unsound, and some bordering on the manic. We fear that this Agency too, will always have one or two projects in the works, li[illegible] a small boy who can't resist making mud dams, no matter how many he already has, no matter whose mud it is....."

"This evident policy of the Agency to suppress information which is detrimental to its viewpoint is best exemplified by the position the agency has taken in regard to the Attorney General's opinion concerning the Agency's ten-cent tax limitation for administrative expense. By resolution of its Directors, the Agency's Attorney sought the opinion of the Attorney General regarding his interpretation of the ten-cent limit and this action was released to the press. The response of the Attorney General, although prefaced by his statement that by law his office was not obliged to advise the Agency, nevertheless did give his opinion as to the matter. The Agency voted to withhold the Attorney General's opinion from publication in its Progress Report and voted against publishing it in any form. We wonder to what extent a favorable opinion would have been broadcast.

"So determined was the Agency in this matter, it even expunged from the minutes the remarks of a member of your Committee where he sought to explain this matter to one of the Agency's taxpayers at an Advisory Committee meeting.

"Further, the Agency, since its inception, has maintained that the boundaries of the Agency afford the best means of control for water basin management since it has consistently contended that there is only one basin. The East Kern constituency has pointed out the fallacy in this position and testimony before the Committee at its last two meetings, by a representative of the United States Geological Survey, has conclusively supported its view.

"Let us be perfectly blunt here, because we have now reached the heart of the entire matter, which is this: In our opinion, certain forces in the Antelope Valley area have long desired a method of getting their hands on East Kern's abundant ground water supply for their own purposes. And we are sincerely convinced that the only reason the East Kern area is in the Antelope Valley-East Kern Water Agency today is that the group which formed the Agency included it within the boundaries during a series of 1959 secret meetings and while doing so

developed the additional idea of having East Kern pay 25% of the cost of sending its water to these organizers and promoters.....

"This matter relates to the discussion of ground water basins within the Agency's boundaries by Mr. Lee C. Dutcher of the U.S. Geological Survey which refutes wholly and completely the Agency's position that its function was enhanced by the control of what it claimed was the one existing ground water basin which its boundaries encompassed.....

"In addition, the East Kern area of AVEK found itself also included in the Kern County Water Agency and today is in the unique position of paying taxes to two agencies, one of which probably may never provide it with supplemental water and the other--AVEK-- which probably can't do so until 1990 or later, even if it is needed.

"Regardless of these unusual legislative exercises, the fact remains that good public policy dictates the need for planning now for the acquisition of the supplemental water which may be required in the area 10 to 30 years from now. There can be no quibble about this.....

"However, a full-fledged controversy had not erupted before April. 1963 for three important reasons:

1. With the modest tax rates levied by both Agencies, with the AVEK 1962-63 rate being 16-cents per hundred dollars of assessed valuation and Kern County Water Agency rate about 3-cents per hundred, it was felt that reasonable tax rates could be viewed as the premium for "water insurance".

2. Certain political committments had been made which alledgedly would lead to the exclusion of the East Kern area from one of the two Agencies, probably the Kern Agency. (underlining added)

3. Public apathy because the real work of the Agency seemed so far off.

"The sudden report that an 85-cent rate was being considered by AVEK jolted the East Kern community and Major Taxpayers in both segments of the Agency into action, with regar to each of these three factors.

"A tax increase of the magnitude reported made it apparent that AVEK tax rates would be much in excess of "water insurance" premiums and suggested extremely heavy money outlays generally and well in advance of the arrival of supplemental water. It became apparent, to state it bluntly, that AVEK was going into the "water business" ten years before it had any imported water. This, in turn, suggested that the Agency was contemplating a move into the management of ground water basins without the knowledge or approval of the legal owners of water rights in the various water basins in the area.....

"It will soon be a year since this affair started and, frankly, nothing much seems to have been done insofar as weighing the advantages of severance is concerned. The Agency, la: gely under prodding from the taxpayers, and with an assist from the Attorney General, has indicated some changes in thinking from what prevailed a year ago but some essential facts remain unaltered:

1. East Kern has no need for the elaborate plans the Agency is proposing that are not connected directly with the provision of supplemental water.

2. East Kern has good ground water reserves in a natural basin that has no relation whatsoever to the basins in the Los Angeles County area according to the recent study of the U.S.G.S. and does not care to risk having a Los Angeles County dominated Agency Board assume control over this purely local water now or ever.

3. The inequitable gerrymandered political composition of the AVEK Board of Directors gives the larger (in land area and water reserves) East Kern area less than two of the seven Directorates.

4. The best plan for supplying East Kern with supplemental water is not even visible on the horizon; the many changes in water thinking may suggest a very simple solution 30 or 40 years from now and consequently the costly engineering studies constantly being conducted by the Agency's battery of engineers is worthless to this area.

5. A long history of the many economic, social and political factors involved indicate the two segments of the Agency should function separately. Unfortunately, very little of the material submitted to the Advisory Committee to this date has made any pretense of reflecting the very strong arguments that exist in favor of severance. We hope that our Summary letter and this somewhat longer recital will serve to broaden your understanding of the issues as they pertain to the question of severance.

12. AMEND THE AGENCY ACT (continued)

(b) (continued)

"Through the months of this controversy, certain Directors of the Agency, have from time-to-time, alone or severally, and in one case, in company with the Agency's Engineer-Manager, made public statements that if severance of the Agency and the taking of its 25% of allotted water is what is desired by the East Kern Constituency they have no objection. We are encouraged by this expression of opinion by those Directors. We feel that a plan of severance should be developed by your Committee and you will find that East Kern County has the financial responsibility necessary to handle its allocated 25% of supplemental water. By implication within the present Agency framework, this financial responsibility already exists,"

(c) Joint Powers Agreement between Kern County Water Agency and AVEK

Negotiations have been initiated by AVEK to reach a Joint Powers Agreement with the Kern County Water Agency wherein the Kern County Water Agency would pay to an Improvement District of Antelope Valley-East Kern Water Agency the money collected by the KCWA from the levy of the general agency tax within the overlapped area. There appears to be a desire on the part of the Kern County Water Agency to negotiate this matter in order to eliminate the double taxation in the overlapped area.

SUPPLEMENT

(Reference Material)

PWS-0114-0061

INDEX to SUPPLEMENT

	NAME OF REFERENCE	PAGE NO.
1.	Editorial A.V. Ledger-Gazette – April 30, 1959 "Municipal Water District Should Include All Of Water Basin"	S-1
2.	Editorial A.V. Ledger-Gazette – May 11, 1959 "Without Master Water District, All We Will Have Is Desert"	S-2
3.	Editorial A.V. Ledger-Gazette – May 18, 1959 "Should PID Directors Speak For Entire Valley On Water Problem?"	S-3
4.	Editorial A.V. Ledger-Gazette – May 25, 1959 "All Factors Indicate One Water District Best for Basin's Area"	S-4
5.	Editorial A.V. Ledger-Gazette – May 27, 1959 "Committee Acts On Water Body"	S-5
6.	Editorial A.V. Ledger-Gazette – May 29, 1959 "New Water District Boundaries Set At Sacramento Meeting"	S-5
7.	Studies Report and Conclusions to the Assembly Interim Committee on Water "Ground Water Problems in California"	S-6 – S-22
8.	AVEK Water Agency Law – Section 61 "Powers of AVEK"	S-23 – S-26
9.	AVEK Water Agency Law – Section 61.1 "Equitable Distribution and Apportionment of Water; Determination of Fair Share"	S-26
10.	AVEK Water Agency Law – Section 65 "Exercise and Delegation of Administrative, Executive and Ministerial Powers"	S-27
11.	AVEK Water Agency Law – Section 67 "Officers and Employees; duties; bonds; designation of depositories of funds"	S-28
12.	Portion of California Water Resources Development Bond Act Water Code, Chapter 8, "Water Resources Development Bonds"	S-29 – S-36
13.	Portion of Assembly Interim Committee Report (1963-65) Vol. 26, Number 9 "Study of Water District Laws" (Districts created by Legislature)	S-37 – S-42
14.	Letter – Senator Walter W. Stiern from Al E. Akelton – May 22, 1963	S-43 – S-54
15.	Attachments to above Stiern Letter	
	(a) Proposed Amendment to Senate Bill 1524	S-55
	(b) Map of Ground Water Basins	S-56
	(c) Antelope Valley Basin Ground Water Profiles	S-57
	(d) Fremont Valley Basin Ground Water Profiles	S-58
	(e) Historic and Projected Population in AVEK	S-59
	(f) Current Assessed Valuation and Estimated Market Value, 1962-63	S-60
	(g) Present and Projected Assessed Valuations	S-60
	(h) Tax Rate Necessary for Capital Repayment of Local Conveyance Facilities and State Water Facilities	S-60
16.	Letter – Senator Walter W. Stiern from R. G. Lunt – May 29, 1963 Subject: Senate Bill 1524	S-61
17.	Attachments to above Stiern Letter	
	(a) Resolution R-63-12 – Proposed	S-63
	(b) Resolution R-63-12 – Adopted	S-65
18.	Senate Bill 1524 as Introduced and Amended April 26, 1963	S-66
19.	Letter Report – California Taxpayers' Association to Mr. Henry O. Harries Atchison, Topeka & Santa Fe Railway Company – December 12, 1963	S-67

	NAME OF REFERENCE	PAGE NO.
20.	Letter Report – Mr. R.M. Edmonston of Bookman and Edmonston Consulting Civil Engineers to "AVEK Major Taxpayers' Committee" Attn: Mr. George H. Sturtevant, Chairman – December 24, 1963	S-71
21.	List of Antelope Valley - East Kern Major Taxpayers – May 24, 1963	S-78
22.	Revised List of Antelope Valley - East Kern Major Taxpayers – Rec. Dec. 10, 1963	S-79
23.	Ordinance O-64-2 – Relating to Policy on Financing and Budget Procedures Adopted by AVEK Board of Directors February 25, 1964	S-83
24.	Letter Report – Al E. Skelton from R.G. Lunt Relating to Apportionment of Water	S-85
25.	Letter – Walter J. Diffley, U.S. Borax & Chemical Corp. from D.C. Sparling, President, Mojave Public Utility District – June 19, 1964	S-87
26.	Letter Report – Whitford B. Carter from W.J. Diffley, United States Borax & Chemical Corp., Boron, Calif. – July 2, 1964	S-90
27.	Letter – W.B. Carter from Eursell Sl Cordell, U.S. Dept. of Agriculture, Soil Conservation Service – Relating to Need for Flood Control – July 7, 1964	S-93
28.	Attachment to above Eursell S. Cordell Letter	
	(a) Inventory of Watershed Project Needs	S-94
29.	Additional Information to above letter and attachments	S-96
30.	Map - Watershed	S-98
31.	Portion of AVEK "Reconnaissance Report" December 1963	
	(a) Map – Occurrence and Movement of Ground Water	S-99
	(b) Reconnaissance of Ground Water in The Western Part of The Mojave Desert Region, California	S-100
	(c) Map – Water Conveyance Facilities	S-108
	(d) Reconnaissance Design of AVEK Conveyance System	S-109
	(e) Summary of Conveyance Methods	S-113
	(f) Chart – Population Projections	S-115
	(g) Chart – Method of Payment of State Water Project Costs	S-116
32.	Resolution No. 30 – May 22, 1961, adopted by AVEK Board of Directors – Relating to Flood Control Project known as "Portal Ridge Watershed Project"	S-117
33.	Letter Report – W.B. Carter from United Water Conservation District, Wm. P. Price, Jr., General Manager & Chief Engineer	S-118
34.	Letter Report – Harvey O. Banks and Clair A. Hill from Feather River Project Association, Dell L. Falls and Murray D. Pond	S-121
35.	Letter – Warren M. Dorn from Raymond H. Krueger	S-124
36.	Letter – Warren M. Dorn from Milton Breivogel, Director of Planning, The Regional Planning Commission	S-125
37.	Letter – AVEK Board of Directors from John A. Lambie, County Engineer "Formation of District For Flood Control Purposes"	S-128
38.	MISCELLANEOUS MAPS	
	(a) Improvement District No. 2	S-130
	(b) Flow Distribution Analysis	S-131
	(c) Improvement District No. 1	S-132

Municipal Water District should include all the water basin

The Municipal Water District that the Antelope Valley-East Kern Water Basin Association is forming should include all the basin, no part should be left out.

The State Department of Water Resources and the State Legisiature have firmly indicated that as the plans for the building of the Feather River Project proceed they will expect each region to which they have allocated supplemental water, to be represented by a water district that can speak for the whole region, not just part of it.

This makes a great deal of sense. A region is capable of bringing together all the needs of the many individual water districts within it and combining them to a total need, and representing this total need in negotiations with the State.

This will mean that regional differences and problems will be ironed out locally, not before state agencies. Nothing could be more bleak from the state's point of view than dealing with fifty-'leven districts in each region who have not the foresight nor the ability to evaluate their water needs as a region and to act upon them as a region.

The formation of a basin wide district need not in any way encroach upon the rights and powers and duties of the individual water districts within the basin. It would not be good sense to do so. The district should do only that necessary to represent the basin in dealings with the state, and to be prepared to build only such works as needed to serve the various districts. That the power to do more might exist, and would exist in a Municipal Water District, should not become the basis of an argument that the MWD would misuse its powers.

Such arguments can only mean that one area in the basin does not intend to trust another area as a matter of principle—certainly a very poor foundation on which to build.

A municipal water district has five directors, each coming from one of five divisions, "according to and based upon the population as estimated by the board of supervisors from the register of voters used at the last general election, in such manner as to equalize, as nearly as practicable, the population in the respective divisions." (Sec. 3)

With directors representing their areas, then the control of the MWD cannot fall to any one of the areas, but must result from sensible, reasonable cooperation among the directors.

It would be a mistake of the first order if we in Antelope Valley-East Kern were to form a MWD and leave out of it any territory that might expect to be represented by a director if it were included. It would not be represented at all in the doings of the MWD if they were left out!

A Municipal Water District is too important an organization for any area to stay out.

Any area left out can only later find that it must be included in; at which time it will find that it has lost greatly by trying to stand on the sidelines, and that by breaking the united front so important in the water development of Antelope Valley-East Kern it has hurt the whole region, and itself most of all.

—W.J.V.

ANTELOPE VALLEY LEDGER GAZETTE – April 30, 1959

Without master water district, all we will have is desert

The subject of supplemental water is a fascinating one, and one on which every Antelope Valley-East Kern leader of public opinion must be well informed.

It is a subject on which there must be community unity, no matter how difficult it may be to convince oneself that this is necessary, before one can feel that real progress in water matters is going to be achieved.

Community unity on water does not mean that all the problems are solved, they will not be and those to be solved will be very difficult.

But with community division, a "leave me out" philosophy, they will be infinitely more difficult to solve.

There is an interesting "battle" now in progress in the Upper San Gabriel Valley. It is worth considering.

There the equivalent of the AV-EK Water Basin Association is the Upper San Gabriel Valley Water Association. It has been working for the formation of a municipal water district just as has the AV-EKWBA.

And at one point in the maneuvering, Azusa, Monterey Park, Alhambra and Sierra Madre broke away to form their own district.

The cities in the Association are Arcadia, Baldwin Park, Bradbury, Covina, Duarte, El Monte, Glendora, Industry, Irwindale, La Puente, San Gabriel, South El Monte and South Pasadena.

West Covina is on the sidelines.

"Battle" lines are drawn through cities because each city council can act for the incorporated area—somewhat as the boards of directors of the Palmdale Irrigation District and the Littlerock Irrigation District are assuming to act for the people living in their irrigation districts. Only a city has the legal power to act, so the PID and LID boards can only urge and campaign, and threaten to tie things up in knots in legal maneuvers, while in fact they are powerless to act officially for the people of their districts if these people wish to participate in the formation of a municipal water district.

A key background fact in San Gabriel Valley is the position of the Metropolitan Water District, the great district that exists by virtue of a state law, and that distributes water taken from wells and the Colorado River to some forty cities in Southern California.

The Metropolitan Water District, to whom the municipal water district of the Upper San Gabriel Valley will probably go for supplemental water, has stated that it will not recognize any organization that remains outside of the proposed Upper San Gabriel District. The undoubted reasons are (1) that MWD does not care to deal with more than one representative agency in the Upper San Gabriel Valley and (2) that the proposed municipal water district, being the largest in area, would be the natural one to deal with. MWD does not want to buy a "battle" when it contracts to serve the area.

The situation is exactly parallel to that now existing in Antelope Valley.

If we were dealing with the MWD for supplemental water (and this is a distinct possibility should the state's plans go awry—and remember AV-EKWBA has not tied its wagon to any particular star, it has always said that it is for supplemental water, wherever it becomes available; and remember too that as of today the state legislature has not taken final action on the Feather River Project or the State Water Plan that includes it) it is a certainty that the MWD would say to us "If you want to approach the Metropolitan Water District for supplemental water, first get your own house in order, for we will only deal with the whole area and not a part of it. We do not want to buy a "battle" when we contract with you!"

And this is what the state has told us since the beginning of this program. "We, the state of California, will do nothing in your area until you come up with an organization that can plan for you, engineer for you, and contract with us for the allocation of supplemental water that we have TENTATIVELY scheduled for Antelope Valley-East Kern."

For leaders in a community to look about them and to say "We are in good shape, we can do all that the master district can do" is simply not true.

The MWD and the State will not enter the picture until we have a master district, and if we form a master district, then who will the MWD or the state refuse to deal with on the matter of supplemental water?

The legal council of the PID at a meeting held on April 23 at which this matter was thoroughly discussed stated that the AV-EKWBA was on the right track when it sought to form a master district, "only your municipal water district has too much power." The burden of his argument was that if you have a basin-wide district with a five-man board of directors "all you would have is fights."

Not a very convincing argument when you consider that without the master district all we will have is desert. —W.J.V.

ANTELOPE VALLEY LEDGER GAZETTE – May 11, 1959

Should PID directors speak for entire Valley on water problem?

Everyone wants Antelope Valley to receive supplemental water. On this there is no argument.

Who shall represent Antelope Valley in obtaining this supplemental water is the question.

Last fall the Antelope Valley-East Kern Water Basin Association completed its studies and decided to seek the formation of a municipal water district under the Act of 1911.

When the Association presented its petitions announcing its intention to circulate petitions seeking an election, the Palmdale Irrigation District's board of directors, who had until that time indicated that the formation of a municipal water district accorded with their view of the matter, announced that they did not wish to be included in the district. With the petitions already submitted to the boards of supervisors of Kern and Los Angeles Counties, and these petitions containing the proposed boundaries of the new water district, and these boundaries including the PID, the delay in making its position known to AV-EK was most unfortunate.

For with the legal steps taken for the formation of a district, it is not a simple matter to start over again. (Although the PID has stated that it is, this does not accord with the opinion of AV-EKWBA.)

The second difficulty facing the AV-EKWBA is that while the board of directors of the PID are five, and are elected representatives, the formation of a municipal water district to deal with the state (or with MWD) for supplemental water is a matter for the residents of the PID to decide.

The board can properly recommend its opinion to the people — but do the people agree that they wish the board to resolve the matter for them? And by withdrawing the area of the PID from the proposed district at the behest of the board of directors, the AV-EK would be taking action on the insistence of but five men out of several thousands entitled to vote on the matter if the AV-EK board did not stop procedures, back up, let present procedures run their course and then start over without the PID area.

Is this disenfranchisement of several thousand voters in favor of five men, or is it not?

We think that it is.

A Palmdale correspondent of ours who thinks about these things has written us the following:

"I have a letter in my possession from the Office of the Department of Water Resources at Sacramento in which is stated, that, and I quote, 'There is no question as to the legal ability and capability of the Palmdale Irrigation District to act as a prime contractor with the state for supplemental water from the proposed Feather River aqueduct system, and we would have no objection to contracting directly with the district if that should be the decision reached by the local interests concerned.' End of quote."

To this let us say: the quotation no doubt states the facts. The PID can contract with any duly constituted authority. But can it contract for supplemental water ON BEHALF OF ANTELOPE VALLEY? The quotation says that the state would recognize the PID as contracting agency "if that should be the decision reached by the local interests concerned."

Suppose that all the Valley could agree that the PID should represent it. How would this be accomplished? The PID includes but a small portion of the land in Antelope Valley-East Kern and therefore has no authority over any of the rest of it. And a great deal of the area of AV-EK is in no water district at all. Who would represent this area?

But let us suppose that all the areas in AV-EK, in water districts and not in water districts, were to say "PID, you do the job for us."

The state wants to know how much supplemental water we will want, and when.

The state will want to know that we can distribute the water, what main lines will be built, and how we will buy rights of way, where the main valve in the state aqueduct should be, and a thousand and one other details of engineering.

This will require extensive engineering expenses.

Will PID bear them on behalf of the rest of the Valley?

Will the rest of AV-EK wish to let the PID board of directors set the policy for all the Valley though they are actually responsible for only those persons living within the PID boundaries? Will the five directors, Mr. Lovik, Dr. Bourne, Mr. Franzen, Mr. Cox and Mr. Dahlitz want this responsibility for the water development of 2500 square miles of land?

The PID may have all the authority it needs — as to its own area, but we do not see how this can be extended to the rest of AV-EK unless all areas say they want to become part of PID!

And the PID that now is, and the PID that would be if this were to come about would certainly be two different things!

And a PID, or any other district, that could control the flow of water to all of AV-EK without the rest of the area being represented on the PID board would hardly suit the rest of the Valley.

The PID board of directors has said it is not interested in being in the municipal water district. But as the board is not limiting itself to this objective, it is most actively campaigning to kill off the plans to form a municipal water district, then what does the board want?

Does it want to increase its activities to include all the AV-EK area?

And if it did would it not, in general terms, have the same powers and the same duties and the same responsibilities of the municipal water district?

For the job to be done still remains, and whoever does it must have the power, and the power is set forth in irrigation district law just as clearly as municipal water district law.

—W.J.V.

ANTELOPE VALLEY LEDGER GAZETTE – May 18, 1959

All factors indicate one water district best for basin's area

We have listened carefully to all discussions concerning the formation of a supplemental water district for Antelope Valley-East Kern and we are more certain than ever that it would be a mistake of the first magnitude to divide the basin into two or more districts.

We know the men who are leading the group who think we should divide the basin, and we know that they are quite certain that theirs is the right plan. We wish we could somehow get them to consider the facts again, to take the long look that supplemental water requires.

And we wish they would note Mr. Banks' advice to us as to how an area should procede—

(1) Solve the engineering problems.
(2) Solve the financing problems.
(3) Then select law to accomplish the engineering and the financing required.

For if ever the job is going to be done economically and efficiently, the engineering must be the best, the financing the best, and the law must be such as will permit it.

This means leaving the lawyers to have their say until the last, for, to quote Mr. Banks again, "We are trying something no one else has tried, and we are trying to achieve it under antiquated water law concepts."

No one can deny that Antelope Valley-East Kern must have supplemental water in the years ahead.

No one cany deny that with supplemental water we can confidently project a future growth for ourselves and our children and for future Americans.

No one cany deny that bringing in supplemental water will improve the ground water conditions.

No one can deny that if one group should improve the ground water conditions of another group, then the second group is getting something it has not helped provide.

The only way to solve this situation is to prevent its occurrence in the first place by putting all the basin in one water district.

No one can deny that the project we are undertaking will be costly, and that there are vast possibilities of wasting our money if we do not procede on a "basin wide concept." Engineering requires this, financing requires the wealthiest district we can put together. Then why is it that our thinking and our legal approach cannot seem to fashion an organization and select an appropriate legal foundation to accomplish what reason says we must?

Do we not have the courage to do it?
Do we distrust our ability to do it?
Do we distrust each other?

Do we seek local power to the point of destroying one of the finest dreams of Antelope Valley-East Kern?

Why do we say "A master water district is good for part of Antelope Valley-East Kern but not for all of it" when engineering and financing requirements say that this unity in the basin should exist?

Surely the leaders of Antelope Valley-East Kern and the people who follow their lead do have the knowledge, the experience, the courage, and the trust, to do the job.

For lacking it, the glowing future of Antelope Valley-East Kern will have developed a crack in its shining surface that, if not prevented, will take half a century to repair!

—W.J.V.

ANTELOPE VALLEY LEDGER GAZETTE – May 26, 1959

Committee acts on water body

Director Bob Aikins of the Antelope Valley-East Kern Water Basin Association, in Sacramento on behalf of the association and its program to form a master district for supplemental water in the Antelope Valley-East Kern area, reported that the Water Committee of the Assembly last night accepted an amendment to SB 1068 that would create a water agency specifically for the Antelope Valley-East Kern area, R. B. McNutt, President of AVEKWBA, stated this morning.

S.B. 1068 creates a water agency for the desert area of San Bernardino County.

"The Palmdale Irrigation District suggested that a special act would be more acceptable to them," said McNutt.

"We have taken this suggestion and seek our own act for the basin, adapted specifically to our needs. Assemblyman Allen Miller suggested that we ask for a separate section in fi¢ 1068 to create a similar agency for the Antelope Valley-East Kern area. The legislation provides for seven directors.

"The first will be appointed by the Governor, one from each of seven subdivisions within the agency. The subdivisions will be set up by the Department of Water Resources. The boundaries of the agency include the entire water basin of Antelope Valley-East Kern. After the initial appointments directors will be elected".

SB 1068 now goes to the Assembly for consideration.

ANTELOPE VALLEY LEDGER GAZETTE – May 27, 1959

New water district boundaries set at Sacramento meeting

Opposing factions in the Antelope Valley Municipal Water District controversy reached a decision in Sacramento this morning and a new district was formed.

Conferring in Assemblyman Miller's offices, the Valley group representative of North and South interests reached accord on an Antelope Valley-Kern district.

It will not include the Palmdale Irrigation District, the Littlerock District or the Big Rock Mutual and other water companies in the Llano area. The Calla Valli district in Pearblossom comes within the new boundaries.

Assemblyman Miller was expected to present SB 1068 in its new form before the legislature today.

The 41st District assemblyman opened the discussion by pointing out the state favors large water districts. In areas where water storage is an important factor, he said, basin-wide management is perferred.

H said it appeared certain that in time all Water Basins will be adjudicated. He added areas needing water will have to show they are practicing conservation.

Miller then retired leaving the Valley groups to make their decision.

The Ledger-Gazette learned this morning that a three-point program designed to protect South Valley interests had a scant hearing. Proponents of a Valley-wide district were prepared to negotiate for:

A limit of 10 cents per $100 of assessed valuation on the projected valley-wide water agency's taxing power.

The protection of now-prevailing water rights.

And a limitation on the new Agency's power of eminent domain.

Following approval of the new district, it will be divided into seven areas each headed by a Governor-appointee. At the next election, the voters will designate the area heads, it was pointed out.

Representing the Antelope Valley East Kern Water Basin in the discussion were John Valentine, Bob Aikin, Mrs. Jane Pinheiro, Joe Hunt and Al Skelton ,appointed by AV-EKWB president, R. B. McNutt.

Speaking for the South Valley were Lowell Felt, Dr. Francis Bourne, both of Palmdale, and John M. Coffeen and Albert Riddell of Llano.

ANTELOPE VALLEY LEDGER GAZETTE – May 29, 1959

The normal movement of ground water along the hydraulic gradient generally provides for drainage from the basin into the ocean. The outflow of fresh water keeps the salt water from entering the basin. If the ground water level is reduced below the sea water level, salt water will penetrate the ground water basin and impair the quality of adjacent water. Raising the ground water level by refilling the basin or creating a hydraulic barrier are the two best known means to prevent such sea water intrusion, although physical barriers or pumping troughs may also be used.[2]

The water-bearing material in a basin is found in layers or "aquifers" which may be separated by impervious layers of clay. When water moves through an aquifer overlain by clay along a hydraulic gradient, the weight of the water builds up pressure which may cause the water to rise to the surface at openings in the clay and drain away. Where such pressure builds up and there is no method of escape, a pipe driven into the aquifer will produce an "artesian well."

The difficult problems which exist in working with surface water supplies are compounded when the water is underground where direct measurement is very limited. Vast amounts of data must be collected to map the geologic structure of a ground water basin. Such mapping is important to determine the quantity of water in the basin, the movement of water and the "safe yield" or amount of water that can be safely pumped each year. In addition, long ago the shifting of the earth's surface occasionally moved a nonpermeable surface into the line of water transmission of the aquifer and thus restricted or blocked the movement of water. Such "fault lines" or "uplifts" are prevalent, particularly in Southern California.

Each ground water basin or group of basins in the State exhibits individual physical qualities. The source and amount of inflow or outflow, the transmissibility of aquifers, the quantity of water in storage, the quality of the water in storage or percolating into the basin, the best locations to spread water, the best locations to pump, possible damage to the basin from pumping too much water, the possibility of compaction or subsidence of dewatered soils, and other matters show infinite variation. It is, therefore, necessary to study each basin individually before its physical characteristics can be described.

Although precipitation is the natural source of percolating waters in a ground water basin, it is not the only source of percolation. Depending on local conditions, water used for irrigation results in substantial percolation from its downward movement. Similarly, waste water from septic tanks, cesspools and sewage works will move downward to resupply the basin. Such waters normally purify themselves biologically through the percolation process, but certain salts and chemicals in irrigation and waste waters are not affected by percolation and may deteriorate the quality of ground water.

When more water is continuously pumped from a ground water basin than naturally enters the basin, its safe yield has been exceeded and the ground water level falls. If the overpumping or overdraft is not too large or too prolonged no serious immediate harm may result. In fact, a benefit may occur since the overdraft can support the growth

[2] Appendix page A-11 contains a more detailed discussion of these matters which has been extracted from a paper by **Harvey** O. Banks.

of an economy that can subsequently pay for more expensive imported water. However, if the water level continues to fall, various harmful consequences eventually occur. The wells must be deepened, sometimes at considerable expense, until eventually some pumpers along the edge of the aquifer can no longer reach water. Heavy overpumping may result in soil compaction and subsidence of the earth's surface. The deepened wells may reach poor quality water which underlies the better water or which drains in from the edges of the aquifer. Along coastal areas sea water may intrude.

The presence of overpumped ground water basins in California has led to efforts to artificially refill these basins by percolating imported water. This process is called "replenishment" or "recharging" and these two terms are used interchangeably in this report. A recharged basin can be used as a reserve to be pumped out during some future dry period or when future demands for water temporarily exceed the combined imported supply and the safe yield of the basin. Such an underground reserve is available for use in periods of military emergency or interruption of surface supplies by earthquake or other disaster. Use of the reserve can, when properly planned and integrated with the use of surface supplies and the construction of new surface supply facilities, also lead to dollar savings in the overall cost of a long-range water supply. In addition, the aquifer can serve as a natural, low cost system for distribution of water.

The planned development and operation of both underground and surface water supplies is known as "conjunctive operation." Recharging a ground water basin by artificial means is called "spreading" and involves a definite physical act to place the water on the surface of the ground for percolation underground. However, recharging is also accomplished indirectly if pumping from the basin is reduced below the safe yield so that natural inflow into the basin accumulates and refills the basin. These two approaches are quite different but they both result in refilling the basin.

The key to any effort to reduce pumping in a basin or to spread water lies in securing sufficient water to supply the demands of the area. Normally this water is secured by importing a new surface supply, by developing local unused surface supplies through storage and diversion, by shifting pumping from an overdrafted aquifer to an adjacent or deeper aquifer not overdrafted, or by recycling water within the basin such as by waste water reclamation. It is also possible to get more efficient use of existing supplies and reduce waste by educational programs and increasing the delivered price for water.

If water is to be spread to replenish a basin, the water must be imported or developed. Funds for this purpose have been raised in several instances by an ad valorem assessment or by a "replenishment assessment", also known as a "pump tax." The pump tax is an assessment levied on the amount of water pumped and is established at a rate per acre-foot calculated to finance purchase of the amount of water to be spread.

In several instances court decrees have been secured to limit the amount of water which all pumpers can extract to the safe yield of the basin. Because the decree establishes the amount of water a pumper

can extract, it determines the extent of his water right after the reduction. This court action is called an "adjudication."

In those areas of the State where overpumping exists, there have been demands for "management of ground water basins," which is a broader term than the more technical expression "conjunctive operation." But, just as the physical properties of ground water basins differ, the economic and political factors vary from basin to basin and there is no evidence from the committee's hearings of any common management practices for ground water basins. Management of ground water basins, therefore, means little more on a statewide basis than taking appropriate steps to best preserve, protect and utilize each ground water basin. Such steps may range from recording minimal data in the northern part of the State to expensive legal and engineering endeavors in Southern California.

When management is given a more specific meaning, it generally covers the relatively complete control of the ground water basin as practiced in certain areas of Southern California. However, such complete control is not needed in most parts of the State where its discussion results in misunderstanding and generates concern that inappropriate control actions are being proposed for ground water basins which do not need control. This report will discuss ground water problems as they exist in the context of each major ground water basin problem area and will not generalize on conditions throughout the State.

IV. CONSIDERATIONS IN GROUND WATER MANAGEMENT

1. LEGAL PROBLEMS [14]

In California "rights to the use of percolating ground waters consist of correlative rights and appropriative rights. Against either, prescriptive rights may vest." The rights of overlying landowners are correlative, or "coequal" among themselves. They exist "solely by reason of the situation of the land" over the ground water basin and are obtained "by acquiring title to the land." If there is any surplus ground water "above the aggregate quantities required for the reasonable beneficial use of the overlying" landowners, the surplus may be appropriated for nonoverlying uses, such as devotion to a public use by a public utility or municipality or for exportation beyond the basin.

If there is no surplus with the result that "the common supply of (ground water in the basin) is not adequate for the needs of all overlying land, each landowner is entitled to an equitable portion." When there has been surplus water but the surplus ceases to exist because of

[14] The first two paragraphs of the section on legal problems reflect the committee's understanding of the law as it pertains broadly to ground water basin management. The two paragraphs have been reviewed by the legal staff of the State Water Rights Board. The quotations have been taken from Wells A. Hutchins, *Irrigation Water Rights in California,* California Agricultural Experiment Station Extension Service, Circular 452.

The Legislative Counsel Bureau drafted paragraphs 4 through 6, in addition to reviewing the remainder of Section 1, and has furnished the committee with the following extract from the decision of the California Supreme Court in *City of Pasadena* v. *City of Alhambra,* 33 Cal. 2d., 908, 925-927.

> "Generally speaking, an overlying right, analogous to that of a riparian owner in a surface stream, is the right of the owner of the land to take water from the ground underneath for use on his land within the basin or watershed; the right is based on ownership of the land and is appurtenant thereto. The right of an appropriator depends upon an actual taking of water. . . . Where a taking is wrongful, it may ripen into a prescriptive right.
>
> "Although the law at one time was otherwise, it is now clear that an overlying owner or any other person having a legal right to surface or ground water may take only such amount as he reasonably needs for beneficial purposes. . . .
>
> "It is the policy of the state to foster the beneficial use of water and discourage waste, and when there is a surplus, whether of surface or ground water, the holder of prior rights may not enjoin its appropriation. Proper overlying use, however, is paramount and the right of an appropriator, being limited to the amount of the surplus, must yield to that of the overlying owner in the event of a shortage, unless the appropriator has gained prescriptive rights through the taking of nonsurplus waters. As between overlying owners, the rights like those of riparians, are correlative and are referred to as belonging to all in common: each may use only his reasonable share when water is insufficient to meet the needs of all. As between appropriators, however, the one first in time is the first in right, and a prior appropriator is entitled to all the water he needs, up to the amount that he has taken in the past, before a subsequent appropriator may take any.
>
> "Prescriptive rights are not acquired by the taking of surplus or excess water, since no injunction may issue against the taking and the appropriator may take the surplus without giving compensation; however, both overlying owners and appropriators are entitled to the protection of the courts against any substantial infringement of their rights in water which they reasonably and beneficially need. Accordingly, an appropriative taking of water which is not surplus is wrongful and may ripen into a prescriptive right where the use is actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under claim of right. To perfect a claim based upon prescription there must, of course, be conduct which constitutes an actual invasion of the former owner's rights so as to entitle him to bring an action. Appropriative and prescriptive rights to ground water, as well as the rights of an overlying owner, are subject to loss by adverse user."

overpumping and an overdraft is developing, the overlying landowners must act to protect their rights. As between such overlying landowners and appropriators, the rights of overlying landowners are paramount and an overlying landowner, if he seeks it, is entitled to court protection against any appropriation that results in such a lowering of the ground water level in his existing wells as to render inadequate his means of utilizing the water in a reasonable manner. However, if the basin has actually become overdrafted by continual pumping in excess of the safe yield, prescriptive rights may be established by extractions made after the commencement of the overdraft and both overlying landowners and prior appropriators may lose all or part of their rights. Prescription occurs when the extraction is open, adverse to owners of prior rights, continuous for the statutory period of five years and under claim of right. Acquisition of rights by prescription is involved in the ground water adjudications to date in Southern California as discussed below.

The case of *City of Pasadena* v. *City of Alhambra* is an important example of a judicial solution to ground water management problems by adjudication. This case involved the Raymond Basin, which had been overdrafted for many years. Notwithstanding this fact, the parties, both overlying owners and appropriators, had continued their pumping, thereby continuing the overdraft and lowering of the water table. All of the parties entered into a stipulation that "all of the water taken by each of the parties to this stipulation and agreement was, at the time it was taken, taken openly, nortoriously, and under a claim of right, which claim of right was continuously and uninterruptedly asserted by it and was adverse to any and all claims of each and all of the other parties joining herein."

The court held that there was an invasion, to some extent at least, of the rights of both overlying owners and appropriators when the overdraft first occurred; that each taking of water beyond the safe yield, whether by subsequent appropriators or by increased use by prior appropriators, was wrongful and injured the then existing owners of water rights by gradually reducing the water supply so as to eventually render the supply insufficient to meet the needs of the rightful owners. Thus, prescriptive rights were gained by the wrongful takers to the extent the rights of the rightful owners had been invaded throughout the statutory five-year period.

However, because the overlying owners and prior appropriators had also continued at all times to pump all of the water they needed, the court held that the invasion of their rights was only partial, and that by their acts they either retained or acquired rights to continue to take some water in the future. Thus, the prescriptive rights against them were limited to the extent that they retained or acquired rights by their pumping.

The judgment of the court limited the production of water in the basin by a proportionate reduction in the amount which each party had taken during the statutory period, with the total annual pumpage from the basin being limited to the safe yield. Each party was allowed about two-thirds of the amount of water he had taken over a five-year period prior to the filing of the complaint, as to which there had been no cessation of use for any subsequent five-year period.

The result reached in *City of Pasadena* v. *City of Alhambra* has been commonly referred to as the "doctrine of mutual prescription." Although the court did not use that term and expressly declined to decide whether the overlying owners retained simply a part of their original overlying rights or whether they obtained new prescriptive rights to use water, the procedures used in the Raymond Basin have been similarly applied by the courts in the West Coast and Central Basins to reduce proportionally the pumping by all pumpers.[15]

The amount of water which may be pumped from an underground basin, in the absence of a court action to limit pumping, is not fixed. Existing pumpers may increase their pumping, or new pumpers, whether overlying landowners or appropriators, may drill new wells, even though the basin is overdrafted. As a result, each pumper in an overdrafted basin is actually competing with other pumpers for his supply of water. Eventually the declining water level reduces pumping from some wells and intruding sea water salinates others. The lowering of wells becomes increasingly expensive, if not prohibitive, and the value of a water right is diminished. This is the situation in varying degrees in the six areas discussed above and in several other ground water basins in the State.

Adjudication of water rights in an underground basin is often a lengthy and costly proposition. The *Raymond Basin* case took 12 years of litigation. A superior court action involving the West Coast Basin, which pioneered in solving many legal problems, took 16 years of litigation, cost $165 per acre-foot of annual yield, and the case may still be appealed. In a current action involving the Central Basin, a stipulation on an interim judgment among certain of the parties will be achieved in nine months, with a final judgment expected in several years.

Because the hydrology of ground water is so complex, the use of stipulations in cases adjudicating ground water rights may shorten the length of time it might otherwise take to identify all of the various types of rights involved and to determine the relative priorities. Certain of the stipulations in the *Raymond Basin* case have already been mentioned. In the superior court action involving the West Coast Basin, some of the parties entered into a stipulation for judgment in order to allocate the water and to restrict the total production to the safe annual yield.

With regard to the *Raymond Basin* case, an "exchange agreement" was worked out by all the parties except one, and this agreement was approved by the court.

The stipulation for judgment in the *West Coast Basin* case provided for an exchange pool. Pumpers who were required by the judgment to reduce their pumping below their needs may overpump to the extent that pumpers with alternative sources of water correspondingly decrease their pumping below the allowed amount and release water to the exchange pool. The costs of importing water to replace the water so released are to be paid by those benefiting from the overpumping. The

[15] An article in the March 1962 edition of the *California Law Review* entitled "Ground Water Basin Management," by James H. Krieger and Harvey O. Banks, discusses the case of *City of Pasadena* v. *City of Alhambra* and other matters. Also see Legislative Counsel's analysis on Appendix page A-35.

Watermaster Service of the Department of Water Resources was designated to administer the judgment for the courts in the Raymond and West Coast Basins and the courts retained jurisdiction to revise the judgments if changed conditions warranted.[16]

The cost, the complex legal procedures, and time involved in the West Coast Basin adjudication have resulted in proposals for speeding up the adjudication processes. A number of proposals, such as A.B. 3042, or the proposal advanced by the Southern California Water Coordinating Conference, appeared to have substantial merit.[17] However, almost all of these proposals were vigorously opposed at committee hearings as being good in principle but not worked out in detail, as unnecessary on the basis of the limited experience with adjudications to date, or were contested both by parties having been litigants in adjudications or parties who feared that they would be litigants under the proposals. The committee, therefore, found no concensus on the details of legislation to change adjudication procedures.

Only three basins in Southern California have been completely or partially adjudicated. On the basis of this experience, testimony was offered that adjudication should be undertaken in other basins either voluntarily or perhaps required by state action. The supporters of adjudication claim that without it a basin may be damaged or destroyed. The committee examined the case for adjudication carefully, but found no satisfactory basis to determine when an adjudication is necessary or should be undertaken. No objective criteria have been advanced to measure the degree a basin is being damaged and no basin has yet been destroyed. In fact, the committee found approximately the same degree of protection being given by the Orange County Water District and the United Water Conservation District to their basins, which have had no adjudication, as in the West Coast or Raymond Basins which have been adjudicated.

Two forms of permanent damage which might occur to a basin are the intrusion of salt water and subsidence. Recharging a basin with fresh water will probably force the salt water back towards the ocean in a manner similar to the operation of sea water barriers. Subsidence apparently cannot be reversed but also occurs for several reasons other than overpumping water. The major impact of destroying a basin beyond any posisble use is that all the water supply will have to be imported. Even in the West Coast Basin about 70 percent of the water used is now imported so that a shift of the remaining 30 percent from ground water to an imported supply would not be catastrophic, provided the surface supply is available.

The State should not condone any abuse or waste of its ground water supplies. Yet this is apt to happen when water users anticipate a possible pro rata reduction in pumping under an adjudication which may be based on the use of water for a five-year period. If there is a prospect of adjudication in an overdrawn basin, pumpers are encouraged to pump as much as possible as soon as possible in order to build up a pumping record which will be the base from which the court reduces their pumping. Thus, the possibility of a pro rata reduction based on

[16] See Appendix page A-17 for extracts from the West Basin judgment, and page A-38 for a statement on the computation of rights under the five-year rule.
[17] See Long Beach Transcript, July 19, 1962, page 7.

a five-year period discourages both use of imported water in lieu of pumping and conservation of pumped supplies.

Careful overdrafting of a ground water basin has proven to be a feasible method of developing an economy which can subsequently pay for a more expensive imported supply of water and replenish the overdrafted basin. The unknown factor is whether in the future the overdraft will be terminated by the water users and the basin recharged when conditions permit. This involves the willingness of the people to pay the costs involved. No evidence was offered to the committee that any basin is currently being overdrafted with a prospect that the ground water supply will be exhausted before an imported supply is anticipated to be available or that serious work is not underway to replenish the seriously overdrafted basins.

An adjudication may be desirable where there is need for a rigid reduction in pumping irrespective of the impact on the local economy or where pumpers desire to establish their individual pumping rights to the safe yield of the basin. However, because other areas of the State have been able to establish effective and sound ground water management programs without adjudication, the committee studied carefully the experience of these other areas.

2. ECONOMIC CONSIDERATIONS

A water right is a legal means of protecting the economic value derived by a pumper from the extraction and use of water. The lower the cost of a water supply, the greater is its value when used, all other things being equal. A low cost water supply will be used in preference to a higher cost supply to the greatest extent possible because its use maximizes profits either to the pumper or persons purchasing water from the pumper. Probably the only restraint on individual wasteful use of cheap water in an overdrafted basin is the certainty that it will eventually have to be replaced by much higher cost imported supplies. An individual pumper could voluntarily use high cost imported supplies but he is anxious to keep his costs low. Normally, the pumper has no middle ground or reasonable alternative except continued overpumping until the underground water supply nears exhaustion and his economic cost from switching to higher cost imported water becomes an absolute necessity. The individual water user must await group action.

The development of the replenishment assessment or pump tax has provided a middle ground or reasonable alternative for the pumper. He pays a moderate tax to a replenishment district on each acre-foot of water he pumps which, along with the revenues from all other pumpers, is used to purchase higher cost imported water to replenish the basin. The amount of the pump tax he pays each year will vary with changes in the cost of imported water, with the amount of water pumped, and with annual variations in the amount of rainfall or natural replenishment to the basin.

In its simplest form the pump tax can be used to purchase imported water to replace the water pumped in excess of natural replenishment. However, this can occur only when the basin has the geologic conditions to permit spreading the quantities of water needed for replenish-

ment and the aquifers can transmit the water to the pumps. At present this condition most nearly exists in Orange County.

If it is not possible to spread all the water needed for replenishment or for the aquifer to transmit all the water to the pumper, spreading can be utilized to the maximum possible and then supplemented by surface deliveries. At present no district is using pump tax revenues to pay for such transportation in lieu of pumping but the Santa Clara and United Water Conservation Districts are using ad valorem tax revenues for this purpose. Similarly, pump tax revenues can be used to equalize the price of imported water with pumped water by payment of the incremental cost of imported water over pumped water. This practice is being followed by the Santa Clara Valley Water Conservation District using ad valorem tax revenues. A variation on this approach was authorized by amendments to the Orange County Water District Act which authorized a two-rate pump tax to encourage use of imported water.

The committee believes the pump tax is effective because it applies to the crux of the water use problem, that is, the cheapness of ground water compared to imported water. The pump tax distributes the cost of imported water to replenish the basin among pumpers of ground water in proportion to their pumping. Even though those who pump large quantities of water from the ground water basin pay a correspondingly large pump tax to replenish the common supply of ground water, the actual cost of the imported water is distributed over such a large base that it is not a serious burden on any pumper or water user. The pumper is offered a "middle ground" or reasonable basis to co-operate in conserving the basin water supply.

Wasteful use of the common supply is discouraged if the pump tax is applied to all water pumped because wasteful use becomes relatively self-defeating since it only increases the total amount of water that must be imported and the pump tax will have to be adjusted upward accordingly. In fact, the experience of Orange County has been that the increase in costs of water due to the addition of the pump tax has resulted in more efficient and careful use of water which conserved the entire ground water supply.

Logically, it appears preferable to apply a pump tax on all water pumped from the basin. If it is applied only to water pumped in excess of an adjudicated right, there may still be wasteful use of water under the adjudicated right. Many of the results obtained by a pump tax can be obtained by an ad valorem tax, but the ad valorem tax is based on all land in the basin and does not provide a direct economic restraint on wasteful uses of water or excessive pumping.

In practice, the pump tax is collected in the form of an assessment levied on each acre-foot of water pumped but it is not a tax in the usual sense. In essence it is a toll or fee for imported water pumped in excess of the safe yield of the basin. The district levying the pump tax assumes an obligation to provide a supply of water for replenishment as though it were supplying electric power or any other utility service. The water is therefore being supplied to pumpers by the district with emphasis being placed on adequacy of supply. In an adjudication the emphasis is on dividing up a shortage of a common ground water sup-

ply and establishing individual rights to a limited supply. After a pump tax has become established and replenishment is begun, it is doubtful that an adjudication of the basin would be undertaken because the adjudication would accomplish little. The adjudication would only affirm the right of a pumper to a supply of ground water which is inadequate to meet his total demands without replenishment by a managing district. The pumper has become part of a water supply system from which he cannot afford economically or physically to remove himself, even if he can legally.

Under the pump tax approach it has not been necessary so far to adjudicate rights to pump from the basin and no individual rights have been defined. The district does no pumping and does not control or restrict pumping except through the economic restraints of the pump tax. Instead, each pumper continues to pump his needs and pays his pump tax. If a dry period occurs the pumpers draw down the basin, but since they, themselves, rather than the district or an outside agency, are doing the pumping, under the doctrine of mutual prescription they are damaging only themselves. After the dry period has ended the district continues to recharge the basin and the water levels recover until the basin is recharged and ready for drawdown during the next dry period. If water for replenishment is temporarily unavailable, the pump tax can still be levied and pump tax revenues representing the amount of the overdraft can be set aside to be expended at a later date to recharge the basin when water is available. The inherently equitable and automatic features of the pump tax are among its best features.

In application of a pump tax there are no objective guidelines to establish a condition in a given ground water basin when such action should be taken. In particular, it should be noted that a pump tax and an adjudication are not mutually exclusive approaches. They can be undertaken simultaneously and on occasion perhaps should be undertaken simultaneously. The significant consideration is that an adjudication is normally not necessary if a replenishment program financed by a pump tax is adopted.

3. GROUND WATER BASIN INVESTIGATIONS

Adequate knowledge of a ground water basin is essential to its proper management. Knowledge is important to determine the correct technical solutions to a ground water problem but it should also be available to serve as a guide in the timing of efforts to establish ground water management. To date, most basin management activities in California have been on a pioneering basis, which means that a certain element of experimentation or trial and error has been involved because adequate data, comprehensive studies and the benefits of experience have been lacking.

This condition is changing in California. The Legislature has for several years been providing funds for the Department of Water Resources to make comprehensive studies of ground water basins in Southern California and to determine the optimum plan for management of these basins. Investigations are being completed on the West Coast and Central Basins. Work is underway on the San Gabriel and Chino Basins. Additional work was authorized in 1961 by the Porter-Dolwig Act.

The completion of these basin management studies should contribute substantially to the improved management of the basins studied. For the first time, a complete collection of necessary data on the basin will be available, the optimum plan of management will be outlined, and the people of the basin will be fully informed of the nature and extent of their problem. The management of ground water basins involves education of the public as well as determining wise courses of action to solve the problems. Thus the people will be in a better position to evaluate and establish the best basin management program which they can finance.

4. DATA COLLECTION

Closely associated with any ground water investigation is the collection of data. The committee's hearings showed a substantial variation in the level of data collection throughout the State, but there is also a substantial variation in the need. The most complete data collection programs are in the Los Angeles area where the need is the greatest. Another area of need is in the San Joaquin Valley and here the data is not yet fully available. Northern California has a minimum need for ground water data.

Testimony presented to the committee indicates that Water Code Sections 4999 to 5008, requiring pumpers in Los Angeles, Ventura, Riverside and San Bernardino Counties to file a statement of the amounts of water they have pumped, has been highly beneficial. The two problems presented to the committee regarding this ground water recordation program are whether the recordation programs should be extended to other areas of the State and whether these records of extraction should be prima facie evidence in an adjudication.

Recommendations were made to the committee for extension of the recordation program to other basins being overpumped. The recordation data is historically valuable for ground water basin investigations but not indispensable. Its original purpose and greatest use to date has been in adjudications. The record of the committee's hearings indicates no interest in, or developments toward adjudications in the Santa Clara Valley or the San Joaquin Valley which are the areas with significant ground water problems that are not now within the recordation program. The committee, therefore, finds no need to extend the recordation program until an area requests to be included within the recordation program.

Regarding the question whether the recordation data should be made prima facie evidence in any adjudication, the Water Code now provides that the recordation data is prima facie evidence only after the State Water Rights Board has determined its accuracy. The cost of the determination is borne by the party making the request for the determination. At present, the Water Code makes the filing of a statement by a pumper mandatory, it virtually extinguishes the rights in a given year if a pumper fails to file, it requires the statement filed to be sworn, it makes any willful misstatement a misdemeanor, and finally it requires the pumper to pay a pro rata portion of the costs of the State Water Rights Board incurred for the recordation program. Presumably, the object of the recordation program is to collect data to

help the pumper determine and protect his water right. Since the pumper has no real choice, but must file his statement of extraction, the committee does not feel that the data collected in the recordation program should be made prima facie evidence so that it might be freely used adversely by others against the pumper who filed the data. In addition, the recordation program loses significance when a pump tax is lexied because the same information is the basis for payment of the pump tax. This is apparent in Orange County which is exempt from the recordation program.

Probably the field of data collection most deficient throughout the State as a whole is the geologic and hydrologic mapping of the ground water basins. The ground water basin investigations of the Department of Water Resources in Southern California are filling gaps in this data as each basin is studied. The program of the U.S. Geologic Survey to map the San Joaquin Valley is underway with the State contributing a share of the funds. Some consideration might well be given to the question whether priority areas of the San Joaquin Valley are being mapped first. In view of the committee's hearing at Fresno, special attention might be given to the central portion of the eastern side of the San Joaquin Valley to expedite the geologic mapping program. The committee was not advised of other fields of data collection which constituted special problems or required special attention.

5. STORAGE OF IMPORTED WATER

A problem of great concern and interest in ground water basin management is the expectation that certain basins in the State will some day be used for terminal storage or cyclic storage. The Department of Water Resources anticipates that at some future time Northern California water will be stored in the San Joaquin Valley ground water basins for later pumping and future transportation to areas of need. Neither the Department of Water Resources nor the federal agencies have a specific plan for the physical facilities needed to accomplish such underground storage and none of the works they are currently constructing or contemplating include such an operation.

The use of the San Joaquin Valley or other areas of the State for storage may be valuable in the future and become a reality within several decades. In the meantime, discussion of such a possibility has been disturbing to the landowners and pumpers. It has also tended to create confused thinking because a future problem which currently lacks definition and is incapable of legal, engineering, or economic analysis has been superimposed on more tangible problems of today which can be studied and resolved. For this reason, the committee has passed by the storage of imported water in the San Joaquin Valley ground water basins and will await specific data and plans for such storage.

The problem currently confronting a number of areas in the San Joaquin Valley and Southern California is the terminal storage of imported water. The legal difficulties and questions of impact on pumpers caused by calculated manipulation of ground water levels through wholesale storage and extraction of water are almost unlimited if an outside agency, that is, anyone other than a local district spreading

water, attempts to store water in a basin.[18] These difficulties seem to become minimal and may become nonexistent if a district covering a manageable portion of the basin assumes the responsibility for terminal storage. When this happens the terminal storage becomes identical to recharging the basin and, as already discussed, it is not generally necessary for the storing district to control or allocate the storage space in the basin. The water stored by the local spreading district can be protected by the economic restraints of the pump tax and, if necessary, by action of the storing district to enjoin the exportation of the imported water by new pumpers. As noted in the discussion of the pump tax, special pump tax rates or use of pump tax revenues to equalize imported water costs with pumping costs can also be used to shift water use from the ground water basin in order to facilitate recharge or storage.

No solution other than adjudication appeared from the testimony presented to the committee for the problem of an outside party which wishes to store water in a basin for later pumping. This condition has arisen in the Bunker Hill Basin, where the San Bernardino Valley Municipal Water District and the Western Municipal Water District have made application to the State Water Rights Board for a permit to store water from the State Water Facilities. No decision has been reached by the board on whether it has jurisdiction in the circumstances involved since the applicants are not diverters of surface flows to which the permit process applies, but rather are purchasers of water diverted by the Department of Water Resources under another permit.[19]

The equities involved in the case are difficult to assess and the amount of information available is limited. Perhaps some of this information is not necessary since the most important question is whether the basin will be approached on a piecemeal basis or whether overall management will be undertaken by joint exercise of powers among existing districts or the formation of a basinwide district to manage the basin. Not to be separated from the storage of imported water are questions of water quality, reuse of waste waters, means of recharging the basin as opposed to its more limited use for storage, construction of an outfall sewer, location and timing of distribution facilities for imported water as well as eventual decisions on the relative use of pumped and imported water in various portions of the basin.

The problems of storage in the Bunker Hill Basin are actually the problems of replenishing the basin. Based on the record of committee hearings, co-operation of all agencies in managing the basin on a basinwide scale would be the most desirable approach. Whether the Bunker Hill Basin or the whole upper Santa Ana River area is the proper area for basin management appears to be a matter requiring study, perhaps by the Department of Water Resources in its ground water basin investigation program.

Economic analysis is needed to determine whether the use of high cost water from the State Water Facilities for recharge is economically

[18] For an example of the operation of such storage in the adjudicated Raymond Basin, which is a small basin, see *Report of Watermaster Service on Determinations of Credit for Water Salvaged by the City of Sierra Madre,* Department of Water Resources, August 1959.

[19] Pages 4 to 26 of the Sacramento Transcript of August 2, 1962, contain some discussion of the legal problems involved in these applications.

feasible. Based on past experience with the use of Colorado River water for surface delivery or recharge in lieu of pumping ground water, the prospect that expensive imported water from the State Water Facilities will be used is debatable, even after recognizing that high quality imported water should be used for recharge. More study and cost analysis of this problem appear to be needed. The results may indicate the pricing policies which might be established by the Metropolitan Water District if it is found state project water should be favored for recharge operations.

6. ORGANIZATION FOR REPLENISHMENT

There are presently two proven methods available to water users to manage their ground water basins. One is to utilize the general legislation already available for formation of a replenishment district in Southern California. The Central and West Basin Water Replenishment District is the only district formed under that general act to date. The second method is to amend existing acts to add replenishment powers. This has been done with three special acts, the Orange County Water District, the Santa Clara County Flood Control and Water Conservation District and the Alameda County Water District. The Legislature may be requested to add replenishment powers and especially pump tax powers to more district acts in the future.

From the record available to the committee there is no basis to conclude that the formation of a replenishment district is preferable to adding replenishment powers to an existing district, other factors being equal. Where the addition of replenishment powers to an existing district may eliminate the need for creating another district, it would be preferable to use the existing district. However, it is of utmost importance that the district, no matter what its type, should exercise its replenishment powers over the entire ground water basin or at least a manageable portion of it. An excellent precedent has been included in the Replenishment District Act which requires the Department of Water Resources to determine the boundaries of a replenishment district at the time of its formation. The Legislature might wisely ask the department to make a similar finding, even if an informal finding, before it adds replenishment or pump tax powers to existing districts.

Consolidation of a number of smaller districts or the joint exercise of powers by several districts overlying a basin may be feasible approaches to replenishment. It is difficult to justify more than one pump tax in any given basin unless the pump tax is levied for different supplies of water. Even then it is logically preferable that the simplest approach be followed, that is, one district should administer the tax for all interests.

Water agencies expressed a strong desire to solve their problems themselves and to manage ground water basins locally. The committee agrees that local management is desirable and, as noted earlier in this report, provides simplified solutions to many of the ground water basin management problems. The water users have a choice of solutions available to solve their problems, and their preferences in choosing solutions will assist them in fashioning a management program that will be locally acceptable and financially within their means.

V. SUMMARY

In California, about half of the water used is pumped from the supplies available in the vast underground reservoirs known as ground water basins. Percolation of rainfall and water in rivers are the main sources of natural supply or replenishment for these underground basins. When more water is pumped from the basin than naturally percolates into it, a condition of overdraft exists which will eventually result in loss of the ground water supply to the area if such overpumping continues.

Overpumping of a ground water basin can be alleviated by (1) providing a surface supply to be used in lieu of pumping, (2) a court action or adjudication to reduce pumping, (3) resupplying the ground water basin with imported water artificially percolated or spread on porous soils of the basin, or (4) a combination of these approaches. In addition, the quality of the ground water must be protected from improperly discharged sewage, poor quality drainage water, intrusion of sea water into overpumped basins and accumulation of salts in the water from reuse.

The committee found well-developed programs underway by the Santa Clara Valley Water Conservation District in Santa Clara County, the United Water Conservation District in Ventura County, the Central and West Basin Water Replenishment District in western Los Angeles County and the Orange County Water District. These four agencies cover the basins where critical overpumping has occurred and the committee has concluded that they have made substantial and promising progress toward acceptable programs for ground water basin management. Continuation of such progress should solve the critical existing problems and provide the experience to solve similar future problems in these four areas and elsewhere.

The Upper Santa Ana River area, the San Joaquin Valley and a number of other ground water areas have significant overpumping which may develop critical proportions in the future. Additional water supplies are being planned for these areas, replenishment programs are being studied in some instances and, in general, steps are now being taken looking toward future solution of these problems. Ground water problems in most of these areas will probably become worse and in a few instances become critical before public attention will be focused on them sufficiently to stimulate the local expenditures for necessary programs. The committee has found from experience to date that as ground water management problems become critical, their critical nature is recognized by the people involved and local corrective actions are taken.

The degree of success that has been achieved so far in the solution of problems in the four critical areas and the extent of need for immediate action in noncritical areas is a matter of individual opinion. Some people who are closely associated with ground water problems,

particularly technically oriented persons, are inclined to be dissatisfied with the progress to date. Such views are valuable and desirable to provide the stimulus for continued progress and to point the way towards early recognition and solution of water problems.

The committee conducted its ground water study during part of a very dry three-year period. Ground water levels had been falling rapidly, but this is the function of a ground water basin if used as a long-term reservoir. The important factor in judging current replenishment programs will be the extent to which the basins will recover through planned natural recharge or artificial replenishment when the dry period ends. Present indications are that the replenishment programs recently undertaken will result in major recoveries of water levels if several rainy winters occur.[20]

In the areas of the Santa Clara Valley and the United Water Conservation Districts most notably, but also in the Central and West Basin Water Replenishment District as well as in Orange County, the committee found a public and private desire to enhance the common supply of water. This attitude recognizes that reuse of water moving through interconnected basins constitutes a common supply having interrelated problems of water quality whether upstream or downstream, and that the addition of new water supplies in one part of the basin is beneficial to the whole basin even to the extent, in some cases, of sharing the added costs. The areas with the most successful programs tend to de-emphasize both water rights and allocation of shortages. They accentuate mutual benefits and cost sharing which bring expensive corrective actions within the realm of financial feasibility.

Although the committee found that a pump tax solves many replenishment problems directly by economic rather than legal persuasion, this does not rule out the use of adjudication as a ground water management tool. Adjudication may be necessary on occasion. The committee only found that other methods could accomplish substantially the same public purposes in an easier, more direct manner. In any event, the choice of approaches and the timing of action can best be made by the local interests involved who must be willing to pay the costs of solving the problems.

In general, the committee has found no clear need for major statewide legislation at this time, but finds instead there will be a continuing need for adjustment of statutes and correction of problems as experience indicates and specific difficulties can be defined and resolved. Most of the recommendations made to the committee to expedite initiation of ground water basin management, while seeking worthy objectives, appeared to create as many problems or inequities as they resolved. If, in the future, there are indications of major failure in any of the local ground water management programs, and it can be determined that local negligence or inaction was the cause, the Legislature would then have a basis to take major corrective action.

[20] Correspondence with the four districts having replenishment programs has indicated that the above-normal rainfall and the lower temperatures occurring in 1962 have contributed to a substantial recovery of ground water levels compared to the previous dry years.

61. Powers of agency

Sec. 61. The Antelope Valley-East Kern Water Agency incorporated as herein provided, shall have power:

1. To have perpetual succession;

2. To sue and be sued, except as otherwise provided herein or by law, in all actions and proceedings in all courts and tribunals of competent jurisdiction;

3. To adopt a seal and alter it at pleasure;

4. To take by grant, purchase, gift, devise, or lease, hold, use, enjoy, and to lease or dispose of real and personal property of every kind, within or without the Antelope Valley-East Kern Water Agency;

5. To acquire, or contract to acquire, water works or a water works system, waters, water rights, lands, rights and privileges and construct, maintain and operate conduits, pipelines, reservoirs, works, machinery and other property useful or necessary to store, convey, supply or otherwise make use of water for a water works plant or system for the benefit of the agency, and to complete, extend, add to, repair, or otherwise improve any water works or water works system acquired by it as herein authorized;

5a. To construct, maintain, improve and operate public recreational facilities appurtenant to any water reservoir operated or contracted to be operated by the Antelope Valley-East Kern Water Agency, and to provide by ordinance regulations binding upon all persons to govern the use of such facilities including regulations imposing reasonable charges for the use thereof. Violation of any such regulation shall be a misdemeanor;

6. To lease of and from any person, firm or public or private corporation, or public agency, with the privilege of purchasing or otherwise, all or any part of water storage, transportation or distribution facilities, existing water works or a water works system, and to carry on and conduct water works or a water works system; also to sell water under the control of the agency to cities, and to other public corporations and public agencies within the agency, and to the inhabitants of such cities and of other territory within the agency, and to persons, corporations, and other private agencies within the agency for use within said agency without any preference, and it may, whenever the board shall find that there is a surplus of water above that which may be required by such consumers within said agency, sell or otherwise dispose of such surplus water to any persons, firms, public or private corporations or public agencies or other consumers;

6a. To supply and deliver agency water to publicly owned and operated golf courses and other publicly owned and operated recreational facilities and to public schools, school districts and public school properties, and to fix and establish special rates, terms and conditions for the use and sale of water for each of these purposes; provided, however, that this provision shall not be construed to indicate legislative intent either for or against the existence of any power of the agency to furnish water to other persons, firms or corporations at just and reasonable rates;

7. To have and exercise the right of eminent domain and in the manner provided by law for the condemnation of private property for public use, to take any property necessary to supply the agency or any portion thereof with water, whether such property be already devoted to the same use or otherwise, and may condemn any existing water works or system, or any portion thereof, or any waters or water rights owned by any person, firm or private corporation. In proceedings relative to the exercise of such right, the agency shall have all of the rights, powers and privileges of a city; provided, the agency in exercising such power, shall

in addition to the damage for the taking, injury, or destruction of property, also pay the cost of removal, reconstruction, or relocation of any structure, railways, mains, pipes, conduits, wires, cables or poles of any public utility which is required to be removed to a new location. In no event shall the agency have or exercise the power of eminent domain with respect to property situated outside the boundaries of the agency;

8. To issue bonds, borrow money and incur indebtedness as authorized by law or in this act provided; also to refund (by the issuance of the same obligations following the same procedure) or retire any indebtedness or lien that may exist against the agency or property thereof; also to issue warrants to pay the formation expenses of the agency, which warrants may bear interest at a rate not exceeding 6 percent per annum from the date of issue until funds are available to pay the warrants, and which formation expenses may include fees of attorneys and others employed to conduct the formation proceedings.

8a. To issue negotiable promissory notes bearing interest at a rate not exceeding 6 percent per annum; provided, however, that said notes shall be general obligations of the agency payable from revenues and taxes in the same manner as bonds of said agency; and provided further, that the maturity shall not be later than three years from the date thereof and that the total aggregate amount of such notes outstanding at any one time may be at least equal to seventy-five thousand dollars ($75,000) in the Antelope Valley-East Kern Water Agency but shall not otherwise exceed the lesser of either five hundred thousand dollars ($500,000) or 2 percent of the assessed valuation of the taxable property in the Antelope Valley-East Kern Water Agency or, if said assessed valuation is not obtainable, 2 percent of the county auditor's estimate of the assessed valuation of the taxable property in the agency evidenced by his certificate;

9. To cause taxes to be levied, in the manner hereinafter provided, for the purpose of paying any obligation of the agency, including its formation expenses and any warrants issued therefor;

9a. To restrict the use of agency water during any emergency caused by drought, or other threatened or existing water shortage, and to prohibit the wastage of agency water or the use of agency water during such periods, for any purpose other than household uses or such other restricted uses as may be determined to be necessary by the agency; to prohibit use of such water during such periods for specific uses which the agency may from time to time find to be nonessential;

9b. To prescribe and define by ordinance the restrictions, prohibitions and exclusions referred to in subdivision 9a hereof. Every ordinance relating to the matters referred to in this subdivision shall be in full force and effect forthwith upon adoption, but shall be published pursuant to Section 6061 of the Government Code in full in a newspaper of general circulation, printed, published and circulated in the agency within 10 days after adoption, or if there be no such newspaper it shall be posted within said time in three public places within the agency;

10. To make contracts, to employ labor, and do all acts necessary for the full exercise of the foregoing powers;

11. In case of condemnation proceedings the board shall proceed in the name of the agency;

12. To provide by ordinance of its board of directors for the pensioning of officers or employees and the creation of a special fund for the purpose of paying such pensions, and the accumulation of contributions to said fund from the revenues of the agency, the wages of officers or employees, voluntary contributions, gifts, dona-

tions or any source of revenue not inconsistent with the general powers of the board, and to contract with any insurance corporation or any other insurance carrier for the maintenance of a service covering the pension of such officers or employees, and to provide in such ordinance for the terms and conditions under which such pensions shall be awarded, and for the time and extent of service of officers or employees before such pensions shall be available to them;

13. To acquire, control, distribute, store, spread, sink, treat, purify, reclaim, recapture, and salvage any water, including sewage and storm waters, for the beneficial use or uses and protection of the agency or its inhabitants or the owners of rights to water therein.

14. To join with one or more public agencies, private corporations or other persons for the purpose of carrying out any of the powers of the agency, and for that purpose to contract with such other public agencies or private corporations or persons for the purpose of financing such acquisitions, constructions and operations. Such contracts may provide for contributions to be made by each party thereto and for the division and apportionment of the expenses of such acquisitions and operations, and the division and apportionment of the benefits, the services and products therefrom, and may provide for any agency to effect such acquisitions and to carry on such operations, and shall provide in the powers and methods of procedure for such agency the method by which such agency may contract. Such contracts with other public agencies or private corporations or persons may contain such other and further covenants and agreements as may be necessary or convenient to accomplish the purposes thereof. The term "public agency," as used in this subdivision, shall be deemed to mean and include the United States of America or any department or agency thereof, the State of California or any department or agency thereof, a county, city, public corporation, the Metropolitan Water District of Southern California, or other public district of this State. The term "private corporation," as used in this subdivision, shall be deemed to mean and include any private corporation organized under the laws of the United States of America or of this or any other state thereof. Contracts mentioned herein include those made with the United States, under the Federal Reclamation Act of June 17, 1902, and all acts amendatory thereof or supplementary thereto or any other act of Congress heretofore or hereafter enacted permitting cooperation. Any such contract with the United States of America or any department or agency thereof, or with any private corporation organized under the laws of the United States of America, by which the Antelope Valley-East Kern Water Agency incurs an indebtedness or liability exceeding in any year the income and revenue for such year shall not be executed without the assent of two-thirds of the qualified electors of the agency voting at a special election to be held for that purpose, such election to be called and held, so far as practicable, in the same manner as bond elections for the agency.

15. To commence, maintain, intervene in, and compromise, in the name of the agency, any action or proceeding involving or affecting the ownership or use of water or water rights within the agency, used or useful for any purpose of the district, or a common benefit to lands within the agency or its inhabitants.

16. Distribute water to persons in exchange for ceasing or reducing ground water extractions and to fix the terms and conditions of any contract under which producers may agree voluntarily to use replenishment water from a nontributary source in lieu of ground water, and to such end a district may become a party to such contract and pay from district funds such portion of the cost of such replenishment waters as will encourage the purchase and use of such water in lieu of pumping so long as the persons or property within the district are directly or in-

directly benefited by the resulting replenishment.

17. To issue bonds under Section 68 of this act for the purpose of providing money required to be paid to the agency organized under the Metropolitan Water District Act by the board of directors of the agency as all or part of the terms and conditions upon which the corporate area of the Antelope Valley-East Kern Water Agency may be annexed to and become a part of said metropolitan water district. The amount of said bonds may include expenses of all proceedings for the authorization, issuance and sale of the bonds.

18. To issue revenue bonds for any purpose for which such bonds could be issued under the provisions of the Revenue Bond Law of 1941 or any other law which by its terms is applicable to districts formed under this act.

19. To use the Improvement Act of 1911 for the construction of any facilities authorized to be constructed under the provisions of this act. The powers and duties conferred by the Improvement Act of 1911 on the various boards, officers and agents of cities shall be exercised by the respective boards, officers and agents of the Antelope Valley-East Kern Water Agency. In the application of said Improvement Act of 1911 to proceedings instituted by the Antelope Valley-East Kern Water Agency, the terms used in said Improvement Act of 1911 shall have the following meanings:

(a) "City council" and "council" shall mean the board of directors of the Antelope Valley-East Kern Water Agency.

(b) "Municipality" and "city" shall mean the Antelope Valley-East Kern Water Agency.

(c) "Clerk" and "city clerk" shall mean the secretary.

(d) "Superintendent of streets," "street superintendent" and "city engineer" shall mean the chief engineer of the agency.

(e) "Tax collector" shall mean the county tax collector.

(f) "Treasurer" and "city treasurer" shall mean the treasurer of the Antelope Valley-East Kern Water Agency.

(g) "Mayor" shall mean the president of the board of directors of the Antelope Valley-East Kern Water Agency.

(h) "Right of way" shall mean any parcel of land in, on, under or through which a right of way or easement has been granted to the agency for the purpose of constructing and maintaining any works or improvements of the Antelope Valley-East Kern Water Agency.

Any certificates or documents required to be filed or recorded in the office of the superintendent of streets or street superintendent shall be filed or recorded in the office of the Secretary of the Antelope Valley-East Kern Water Agency. (Stats.1959, c. 2146, p. —, § 61.)

61.1 Equitable distribution and apportionment of water; determination of fair share

Sec. 61.1. The agency shall whenever practicable, distribute and apportion the water purchased from the State of California or water obtained from any other source as equitably as possible on the basis of total payment by a district or geographical area within the agency regardless of its present status, of taxes, in relation that such payment bears to the total taxes and assessments collected from all other areas.

It is the intent of this section to assure each area or district its fair share of water based upon the amounts paid into the agency, as they bear relation to the total amount collected by the agency. (Added Stats.1961, c. 1624, p. 3520, § 2.)

65. Exercise and delegation of administrative, executive and ministerial powers

Sec. 65. All powers, privileges and duties vested in or imposed upon the Antelope Valley-East Kern Water Agency incorporated hereunder shall be exercised and performed by and through the board of directors; provided, however, that the exercise of any and all executive, administrative and ministerial powers may be by said board of directors delegated and redelegated to any of the offices created hereby and by the board of directors acting hereunder.

The board of directors shall have power:

(1) To fix the time and place or places at which its regular meetings shall be held, and shall provide for the calling and holding of special meetings.

(2) To fix the location of the principal place of business of the agency and the location of all offices and departments maintained hereunder.

(3) To prescribe by ordinance a system of business administration and to create any and all necessary offices and to establish and re-establish the powers and duties and compensation of all officers and employees and to require and fix the amount of all official bonds necessary for the protection of the funds and property of the agency.

(4) To prescribe by ordinance a system of civil service.

(5) To delegate and redelegate by ordinance to officers of the agency power to employ clerical, legal and engineering assistants and labor, and under such conditions and restrictions as shall be fixed by the directors, power to bind the agency by contract.

(6) To prescribe a method of auditing and allowing or rejecting claims and demands.

(7) To prescribe methods for the construction of works and for the letting of contracts for the construction of works, structures or equipment, or the performance or furnishing of labor, materials, or supplies, necessary or convenient for carrying out any of the purposes of this act or for the acquisition or disposal of any real or personal property; provided, that in cases where work is not to be done by the agency itself by force account, and the amount involved shall be ten thousand dollars ($10,000), or more, any contract for the doing of such work shall be let to the lowest responsible bidder, after publication, in the manner prescribed by the board, of notices inviting bids therefor, subject to the right of said board to reject any and all proposals; and provided further, that contracts, in writing or otherwise, for the acquisition or disposal of any real or personal property may be let without calling for competitive bids. The board may, from time to time, fix and establish the manner of calling for bids and letting contracts, but except as such procedure so established by the board otherwise requires, all contracts may be entered into upon such terms and in such manner as the board may authorize.

(8) To fix the rates at which water should be sold, and to establish different rates for different classes or conditions of service; provided, that rates shall be uniform for like classes or conditions of service throughout the agency, but any special water rate fixed in accordance with terms and conditions of annexation fixed by the board under the provisions of Section 82 or 83 hereof, shall be deemed to be a rate for a different class or condition of service. (As amended Stats.1961, c. 1624, p. 3520, § 3.)

67. Officers and employees; duties; bonds; designation of depositories of funds

Sec. 67. The president and secretary in addition to the respective duties imposed on them by law shall perform such duties as may be imposed on them by the board of directors. The treasurer, or such other person or persons as may be authorized by the board of directors, shall draw checks or warrants to pay demands when such demands shall have been audited and approved in the manner prescribed by the board of directors.

The chief engineer shall have full charge and control of the maintenance, operation and construction of the water works or water works system of the agency with full power and authority to employ and discharge all employees and assistants at pleasure, prescribe their duties, fix their compensation, subject to the approval of the board of directors.

The chief engineer shall perform such duties as may be imposed on him by the board of directors. The chief engineer shall report to the board of directors in accordance with such rules and regulations as they may direct.

The attorney shall be the legal adviser of the agency and shall perform such other duties as may be prescribed by the board of directors.

The board of directors shall designate a depository or depositories to have the custody of the funds of the agency, all of which depositories shall give security sufficient to secure the agency against possible loss, and who shall pay the warrants drawn by the treasurer for demands against the agency under such rules as the directors may prescribe.

The chief engineer, secretary and treasurer, and all other employees or assistants of said agency who may be required so to do by the board of directors, shall give such bonds to the agency conditioned for the faithful performance of their duties as the board of directors from time to time may provide. The premiums on such bonds shall be paid by the agency. (Stats.1959, c. 2146, p. ——, § 67.)

CHAPTER 8. WATER RESOURCES DEVELOPMENT BONDS
(Chapter 8 added by Stats. 1959, Ch. 1762)

NOTE: Stats. 1959, Ch. 1762, also contained the following provisions:

SEC. 2. Section 1 of this act shall take effect upon the adoption by the people of the California Water Resources Development Bond Act, as set forth in Section 1 of this act. Sections 2 to 4 of this act contain provisions relating to and necessary for the submission of the California Water Resources Development Bond Act to the people, and for returning, canvassing, and proclaiming the votes thereon, and shall take effect immediately.

SEC. 3. The California Water Resources Development Bond Act, as set forth in Section 1 of this act, shall be submitted to the people of the State of California for their ratification at the next general election, to be held in the month of November, 1960, * * *

SEC. 4. The votes cast for or against the California Water Resources Development Bond Act shall be counted, returned and canvassed and declared in the same manner and subject to the same rules as votes cast for state officers; and if it appears that said act shall have received a majority of all the votes cast for and against it at said election as aforesaid, then the same shall have effect as hereinbefore provided, and shall be irrepealable until the principal and interest of the liabilities herein created shall be paid and discharged, and the Governor shall make proclamation thereof; but if a majority of the votes cast as aforesaid are against this act then the same shall be and become void.

12930. This chapter shall be known and may be cited as the California Water Resources Development Bond Act. Short title

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

NOTE: Assembly Concurrent Resolution 151 (Resolutions Chapter 241) of the 1959 Regular Session provides that this act shall be known and cited as the "Burns-Porter Act."

12931. The object of this chapter is to provide funds to assist in the construction of a State Water Resources Development System for the State of California. Said system shall be comprised of the State Water Facilities as defined in Section 12934(d) hereof and such additional facilities as may now or hereafter be authorized by the Legislature as a part of (1) the Central Valley Project or (2) the California Water Plan, and including such other additional facilities as the department deems necessary and desirable to meet local needs, including, but not restricted to, flood control, and to augment the supplies of water in the Sacramento-San Joaquin Delta and for which funds are appropriated pursuant to this chapter. The enactment of this chapter shall not be construed as creating any right to water or the use thereof nor as affecting any existing legislation with respect to water or water rights, except as expressly provided herein, nor shall anything herein contained affect or be construed as affecting vested water rights. Any facilities heretofore or hereafter authorized as a part of the Central Valley Project or facilities which are acquired or constructed as a part of the State Water Resources Development System with funds made available hereunder shall be acquired, constructed, operated, and maintained pursuant to the provisions of the code governing the Central Valley Project, as said provisions may now or hereafter be amended. Purpose

For the purposes of this chapter the Sacramento-San Joaquin Delta shall be deemed to be within the watershed of the Sacramento River. No facility constructed in whole or in part with funds made available by this chapter shall be used to transport water the right to which was secured through eminent domain by others than the State unless approved by the Legislature by concurrent resolution with a majority of the members elected to each house voting in favor thereof.

Transportation of water

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

State General Obligation Bond Law adopted

12932. Insofar as it is not inconsistent with the express provisions of this chapter, the State General Obligation Bond Law (Chapter 4 (commencing at Section 16720) of Part 3, Division 4, Title 2 of the Government Code), is adopted for the purpose of the issuance, sale, and repayment of, and otherwise providing with respect to, the bonds authorized to be issued by this chapter, and the provisions of that law are included in this chapter as though set out in full in this chapter. All references in this chapter to "herein" shall be deemed to refer both to this chapter and such law.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

California Water Resources Development Finance Committee

12933. There is hereby created a California Water Resources Development Finance Committee composed of the Governor, the State Treasurer, the State Controller, Director of Finance and Director of Water Resources, all of whom shall serve without compensation, and the majority of whom shall be empowered to act for said committee. The Director of Finance shall provide such assistance, and the Attorney General shall furnish such legal advice, to the California Water Resources Development Finance Committee as it may require.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Meetings: Open and public

12933.5. All meetings of the committee shall be open and public and all persons shall be permitted to attend any meetings of the committee.

(Added by Stats. 1961, Ch. 569.)

12934. As used in this chapter and for the purposes of this chapter as used in the State General Obligation Bond Law, the following words shall have the following meanings:

Definitions

(a) "Committee" shall mean the California Water Resources Development Finance Committee created by Section 12933.

(b) "Board" or "department" shall mean the Department of Water Resources.

(c) "Fund" shall mean the California Water Resources Development Bond Fund created by Section 12935.

(d) "State Water Facilities" shall mean the following facilities:

(1) A multiple purpose dam and reservoir on the Feather River in the vicinity of Oroville, Butte County, and dams and reservoirs upstream therefrom in Plumas County in the vicin-

ity of Frenchman, Grizzly Valley, Abbey Bridge, Dixie Refuge and Antelope Valley;

(2) An aqueduct system which will provide for the transportation of water from a point or points at or near the Sacramento-San Joaquin Delta to termini in the Counties of Marin, Alameda, Santa Clara, Santa Barbara, Los Angeles and Riverside, and for delivery of water both at such termini and at canal-side points en route, for service in Solano, Napa, Sonoma, Marin, Alameda, Contra Costa, Santa Clara, San Benito, Santa Cruz, Fresno, Tulare, Kings, Kern, Los Angeles, Ventura, San Bernardino, Riverside, Orange, San Diego, San Luis Obispo, Monterey and Santa Barbara Counties.

Said aqueduct system shall consist of intake and diversion works, conduits, tunnels, siphons, pipelines, dams, reservoirs, and pumping facilities, and shall be composed of a North Bay aqueduct extending to a terminal reservoir in Marin County; a South Bay aqueduct extending to terminal reservoirs in the Counties of Alameda and Santa Clara; a reservoir near Los Banos in Merced County; a Pacheco Pass Tunnel aqueduct from a reservoir near Los Banos in Merced County to a terminus in Pacheco Creek in Santa Clara County; a San Joaquin Valley-Southern California aqueduct extending to termini in the vicinity of Newhall, Los Angeles County, and Perris, Riverside County, and having a capacity of not less than 2,500 cubic feet per second at all points north of the northerly boundary of the County of Los Angeles in the Tehachapi Mountains in the vicinity of Quail Lake and a capacity of not less than 10,000 cubic feet per second at all points north of the initial offstream storage reservoir; a coastal aqueduct beginning on the San Joaquin Valley-Southern California aqueduct in the vicinity of Avenal, Kings County, and extending to a terminal at the Santa Maria River;

(3) Master levees, control structures, channel improvements, and appurtenant facilities in the Sacramento-San Joaquin Delta for water conservation, water supply in the Delta, transfer of water across the Delta, flood and salinity control, and related functions.

(4) Facilities for removal of drainage water from the San Joaquin Valley.

(5) Facilities for the generation and transmission of electrical energy.

(6) Provision for water development facilities for local areas as provided in Chapter 5 (commencing at Section 12880) of Part 6 of Division 6 of the Water Code as the same may now or hereafter be amended.

(7) Including for the foregoing (1 through 5) the relocation of utilities and highways and acquisition of all lands, rights of way, easements, machinery, equipment, apparatus, and all appurtenances necessary or convenient therefor.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Authority to create debts

12935. For the purpose of creating a fund, herein designated the California Water Resources Development Bond Fund, to provide for the acquisition, construction and completion of the State Water Facilities herein specified and, to the extent provided in Section 12938, for additions to the State Water Resources Development System, the committee shall be and is hereby authorized and empowered to create a debt or debts, liability or liabilities of the State of California in the aggregate principal amount of one billion seven hundred fifty million dollars ($1,750,000,000) in the manner and to the extent herein provided, but not otherwise nor in excess thereof.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

General obligation bonds

12936. All bonds herein authorized, which shall have been duly sold and delivered as herein provided, shall constitute valid and legally binding general obligations of the State of California, and the full faith and credit of the State of California is hereby pledged for the punctual payment of both principal and interest thereof. Notwithstanding the provisions of subdivision (b) of Section 16731 of the Government Code, the first date or dates of maturity of any series of bonds issued under this chapter shall be not more than 10 years, and the last dates of maturity of any such series of bonds may be fixed at any date or dates to and including 50 years, after the date of that series. The committee may fix different dates for the bonds of each series and the bonds of any series may be made to mature and become payable at different times from those of any other series; provided, that the maturity dates of each separate series shall comply with the provisions of this section.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Payment of interest and principal

12937. The ways and means for the payment of the interest on and the principal of such bonds shall be as follows:

(a) There shall be collected annually in the same manner and at the same time as other state revenue is collected such a sum, in addition to the ordinary revenues of the State, as shall be required to pay the principal and interest on said bonds as herein provided, and it is hereby made the duty of all officers charged by law with any duty in regard to the collection of said revenue, to do and perform each and every act which shall be necessary to collect such additional sum.

Appropriation

There is hereby appropriated from the General Fund in the State Treasury such sum annually as will be necessary to pay the principal of and the interest on the bonds issued and sold pursuant to the provisions of this chapter, as said principal and interest become due and payable.

On the several dates on which funds are remitted pursuant to Section 16676 of the Government Code for the payment of the then maturing principal and interest on the bonds, to wit, on the several dates of maturity of said principal and interest in each fiscal year there shall be transferred into the General

Fund in the State Treasury from revenues deposited in the fund as provided in subdivision (b) of this Section 12937, and from any accrued interest and premiums received on any sale, or sales of the bonds, so far as available therein, amounts equal to, but not in excess of, all sums so becoming due for principal and interest and in the event such money received from such sources and so returned on said remittance dates is less than the principal and interest then due and payable then the balance remaining unpaid shall be transferred to the General Fund out of moneys in the fund received from such sources as soon thereafter as it shall become available, together with simple interest thereon, from such remittance dates until so returned at the same rate as borne by the bonds.

Special account

(b) All revenues derived from the sale, delivery or use of water or power, and all other income or revenue, derived by the State, from the State Water Resources Development System shall be deposited in a special account or accounts in the California Water Resources Development Bond Fund and shall be accounted for and used annually only for the following purposes and in the following order, to wit:

Expenditures

1. The payment of the reasonable costs of the annual maintenance and operation of the State Water Resources Development System and the replacement of any parts thereof.

2. The annual payment of the principal of and interest on the bonds issued pursuant to this chapter.

3. Transfer to the California Water Fund as reimbursement for funds utilized from said fund for construction of the State Water Resources Development System.

4. Any surplus revenues in each year not required for the purpose specified in the foregoing subparagraphs (1), (2) and (3) of this subdivision (b) of Section 12937 and not required to be transferred to the General Fund pursuant to subparagraph (a) of this Section 12937, shall, during the time any of the bonds authorized herein are outstanding, be deposited in a special account in the California Water Resources Development Bond Fund and are hereby appropriated for use and shall be available for expenditure by the department for acquisition and construction of the State Water Resources Development System as described in Section 12931 hereof.

Revenues a trust fund

All such revenues shall constitute a trust fund and are hereby pledged for the uses and purposes above set forth and such pledge shall inure to the direct benefit of the owners and holders of all general obligation bonds issued under this chapter. The department, subject to such terms and conditions as may be prescribed by the Legislature, shall enter into contracts for the sale, delivery or use of water or power, or for other services and facilities, made available by the State Water Resources Development System with public or private corporations, entities, or individuals. Such contracts shall not be impaired by subsequent acts of the Legislature during the time when any of the bonds authorized herein are outstanding

Contracts

and the State may sue and be sued with respect to said contracts. Said contracts shall be for a stated term and, insofar as practicable and feasible, for the full term of the life of the general obligation bonds issued under this chapter and each such contract shall recite (i) that it is entered into for the direct benefit of the holders and owners of all general obligation bonds issued under this chapter, and (ii) that the income and revenues derived from such contracts are pledged to the purposes and in the priority herein set forth. Such pledge of revenues as herein set forth is hereby declared to be and shall constitute an essential term of this chapter and upon its ratification by the people of the State of California shall be binding upon the State so long as any general obligation bonds authorized hereunder are outstanding and unpaid. Such income and revenues, subject to the priorities herein set forth, shall constitute additional security for all of the bonds authorized and issued hereunder irrespective of the date of their issuance and sale and so long as any of the bonds authorized and issued hereunder, or the interest thereon, are unpaid, such income and revenues shall not be used for any other purpose. The bonds authorized hereunder shall be equally secured by a lien upon all income and revenues derived from the State Water Resources Development System without priority for number, amount, date of bonds, of sale, of execution, or of delivery pursuant to this chapter. Notwithstanding the pledge of revenues herein contained, the State of California shall remain liable for the payment of the principal of and interest upon all of the bonds authorized and issued under this chapter.

Bonds secured by lien

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Deposits of proceeds from sale of bonds

12938. All proceeds from the sale of the bonds herein authorized shall be deposited in the fund as provided in Section 16757 of the Government Code and shall be available for the purpose provided in Section 12935, but, except only as to accrued interest and any premiums received on any sale, or sales, of the bonds, shall not be available for transfer to the General Fund. All moneys deposited in the fund are hereby appropriated to the department for expenditure and allocation by the department without regard to fiscal years for the State Water Facilities as herein defined and, to the extent provided in this Section 12938, for additions to the State Water Resources Development System. Of the total amount of the bonds authorized herein, one hundred thirty million dollars ($130,000,000) and no more shall be available exclusively for the provision of water development facilities for local areas as set forth in subdivision (d)(6) of Section 12934. Any money in the California Water Fund, and any surplus revenue as described in Section 12937(b)4, available for expenditure for the State Water Resources Development System shall be used for the construction of the State Water Facilities in lieu of the proceeds of bonds authorized by this

chapter. The use of the proceeds of bonds for such construction shall be decreased by an amount equal to that hereafter expended from the California Water Fund for the construction of State Water Facilities. To the extent that money is expended from the California Water Fund for construction of the State Water Facilities, proceeds from the sale of bonds authorized pursuant to this act in an equal amount, is appropriated and shall be expended for the construction of such additional facilities of the State Water Resources Development System as the department shall determine to be necessary and desirable to meet local needs, including, but not restricted to, flood control, and to augment the supplies of water in the Sacramento-San Joaquin Delta from multiple purpose dams, reservoirs, aqueducts and appurtenant works in the watersheds of the Sacramento, Eel, Trinity, Mad, Van Duzen and Klamath Rivers for use in the State Water Resources Development System, and the department is authorized to construct any and all facilities for which funds are appropriated to it for expenditure pursuant to this chapter. Such additional facilities for local needs shall include those necessary to conserve or develop water which is tributary to the stream upon which any of the facilities of the State Water Resources Development System are constructed and it shall be the duty of the department to diligently plan such full development and submit plans and reports thereon to the Legislature. All moneys in the California Water Fund and all accruals thereto are hereby appropriated to the department for expenditure and allocation by the department without regard to fiscal years for the State Water Resources Development System as defined in Section 12931 except that in any fiscal year the Legislature may appropriate for any lawful purpose any money in the California Water Fund which is unexpended at the beginning of that fiscal year and any money accruing to that fund during the fiscal year.

Appropriation

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

12938.1. The provisions of Article 2 (commencing with Section 13320) of Chapter 3, Part 3, Division 3, Title 2 of the Government Code are applicable to the department with respect to expenditures of money pursuant to this chapter.

Budgets

(Added by Stats. 1961, Ch. 1955.)

12939. Upon the written request of the board, supported by a statement of the expenditures made and to be made for the State Water Resources Development System, the committee shall determine whether or not it is necessary or desirable to issue any bonds authorized under this chapter in order to make such expenditures and, if so, the amount of bonds then to be issued and sold. The committee and the board shall file with the Legislature detailed reports of all expenditures from the California Water Resources Development Bond Fund and the California Water Fund, setting forth descriptions of the pur-

Issuance of bonds

Reports of expenditures

poses of all such expenditures. Such reports shall be filed on or before the fifteenth day of each regular legislative session and shall show schedules of expenditures and the dates on which additional water will be available for sale from principal termini of the State Water Resources Development System and the total amount then available for sale at these termini. Successive issues of bonds may be authorized and sold to make such expenditures progressively and it shall not be necessary that all of the bonds herein authorized to be issued shall be sold at any one time.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Denomination of bonds

12940. If any resolution determining that the sale of all or any part of the bonds herein authorized is necessary or desirable, the committee may in its discretion provide for the interexchange of bonds of different denominations, which may be in any multiple of one thousand dollars ($1,000), the issuance of bonds of different denominations in lieu of or in exchange for bonds of a like aggregate principal amount but of different denominations, the issuance of registered bonds in such denominations as may be specified by the committee and the exchange of such registered bonds for coupon bonds of a like aggregate principal amount but of different denominations. The committee may also provide for the authentication of any bonds by the State Controller or by any deputy state controller. If authentication is so required, no bond authorized hereunder shall be valid unless so authenticated in the manner so required.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Net interest cost

12941. In computing the net interest cost under Section 16754 of the Government Code, the committee may determine that interest shall be computed either from the date of sale or from the date of the bonds or from the last preceding interest payment date to the respective maturity dates of the bonds then offered for sale at the coupon rate or rates specified in the bid, such computation to be made on a 360-day year basis, and the committee shall make appropriate provision therefor in the form of notice of sale of the bonds.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

Sale of bonds

12942. The committee may authorize the State Treasurer to sell all or any part of the bonds herein authorized at such date or dates as may be fixed by the State Treasurer and no direction of the Governor shall be required. The provisions of Sections 16750 and 16754 of the Government Code respecting the direction of the Governor shall not be applicable to such sale.

(Added by Stats. 1959, Ch. 1762. See note at beginning of chapter.)

TABLE V. VOTING BASIS AND FORMATION PROVISIONS—Continued

B. SPECIAL ACT DISTRICTS—Continued

1. County Flood Control and Water Conservation Districts

	District voting basis	Formation		
		Petition	Hearing	Election[2]
Alameda	Voter	No provision	----	----
Contra Costa	Voter	No provision	----	----
Lake	Voter	No provision	----	----
Lassen-Modoc	Voter; bonds: landowner (one vote for each $1000 of assessed value of all property)	10 percent of voters of Lassen County (board may activate without petition[3])	No	At discretion of board of supervisors[3]
Marin	Voter	No provision	----	----
Mendocino	Voter	No provision	----	----
Monterey	Voter	No provision	----	----
Napa	Voter	No provision	----	----
Plumas	Voter; bonds: landowner (one vote for each $1000 of assessed value of all property)	No provision	----	----
Riverside	Voter	No provision	----	----
San Benito	Landowner (one vote in each zone in which own land)	----	----	Yes
San Joaquin	Voter	No provision	----	----
San Luis Obispo	Voter	No provision	----	----
Santa Barbara	Voter	No provision	----	----
Santa Clara	Voter	No provision	----	----
Santa Cruz	Voter	No provision	----	----
Sierra	Voter; bonds: landowner (one vote for each $1000 of assessed value of all property)	No provision	----	----
Siskiyou	Voter; bonds: landowner (one vote for each $1000 of assessed value of all property)	10 percent of voters (board may call election without petition)	No	At discretion of board of supervisors
Solano	Voter	No provision	----	----
Sonoma	Voter	No provision	----	----
Tehama	Voter; bonds: landowner (one vote for each $1000 of assessed value of all property)	No provision	----	----
Yolo	Voter	No provision	----	----

TABLE V. VOTING BASIS AND FORMATION PROVISIONS—Continued

B. SPECIAL ACT DISTRICTS—Continued

2. Flood Control Districts

	District voting basis	Formation		
		Petition	Hearing	Election[2]
American River	Voter	No provision	----	----
Del Norte County	Voter	No provision	----	----
Fresno Metropolitan	Voter	----	----	Yes
Humboldt County	Voter	No provision	----	----
Los Angeles County	Voter	No provision	----	----
Morrison Creek	Voter	No provision	----	----
Orange County	Voter	No provision	----	----
San Bernardino County	Voter	No provision	----	----
San Diego County	No provision for voting	No provision	----	----
San Mateo County	Voter	No provision	----	----
Ventura County	Voter	No provision	----	----

[1] Unless otherwise indicated, board of supervisors of principal county receives petition and conducts hearing and election.
[2] Majority unless otherwise indicated.
[3] Lassen County Board of Supervisors.

TABLE V. VOTING BASIS AND FORMATION PROVISIONS—Continued

3. Water Agencies

	District voting basis	Formation		
		Petition	Hearing	Election[1]
Alpine County	Voter	No provision	----	----
Amador County	Voter	No provision	----	----
Antelope Valley-East Kern	Voter	No provision	----	----
Contra Costa County	Voter	No provision	----	----
Crestline-Lake Arrowhead	Voter	----	----	Yes
Desert	Voter	No provision	----	----
El Dorado County	Voter	No provision	----	----
Kern County	Voter	----	----	Yes
Mariposa County	Voter	No provision	----	----
Mojave	Voter	25 voters (to Board of Supervisors of San Bernardino County)	Yes (by Department of Water Resources)	Yes (by Board of Supervisors of San Bernardino County)
Nevada County	Voter	No provision	----	----
Placer County	Voter	No provision	----	----
Sacramento County	Voter	No provision	----	----
San Gorgonio Pass	Voter	No provision	----	----
Santa Barbara County	Voter	No provision	----	----
Shasta County	Voter	No provision	----	----
Sutter County	Voter	No provision	----	----
Upper Santa Clara Valley	Voter	No provision	----	----
Yuba County	Voter	No provision	----	----

[1] Majority unless otherwise indicated.

4. Other

Kings River Conservation District	Voter	No provision	----	----
Orange County Water District	Landowner or owner of improvements or other assessable rights (one vote per $100 of assessed value in each division); voter, for bond elections only	No provision	----	----
Palo Verde Irrigation District	Landowner (one vote per $100 assessed value of land and improvements)	No provision	----	----

[1] Majority unless otherwise indicated.

Special Act Districts

Of the special act flood control and water conservation districts, all except the Lassen-Modoc District have governing bodies of five members. The Lassen-Modoc District has a board of 10 members as it encompasses two counties. With the exception of the Fresno Metropolitan Flood Control District, which has a nine-member board, all special act flood control districts have five-member boards.

With regard to the special act water agencies, 14 have five-member governing bodies, four have seven-member bodies, and one has an 11-member body. Of the other special act districts, the Kings River Conservation District and the Palo Verde Irrigation District each have seven-member governing bodies and the Orange County Water District has a board of 10 members.

Although the vast majority of districts have five-member governing bodies, there seems to be no real agreement as to the most ideal size. Those with larger boards, the Orange County Water District and the Mojave Water Agency, for example, required these larger boards to meet organization requirements of the local districts.

SPECIAL ACT DISTRICTS

Formation

The passage by the Legislature of a special act district generally replaces at least the first two steps of formation and most often the third step as well. As is shown on Table V, only 5 of the 55 special act districts included in this study (one county flood control and water conservation district, one flood control district, and three water agencies) required an election within the district itself to render the district operative; and only one district—the Mojave Water Agency—required the filing of a petition and the conducting of a hearing by the board of supervisors in a manner similar to that of general act districts.

Unusual circumstances in the area of the Mojave agency also resulted in a requirement in the act that following the filing of the petition, the Department of Water Resources make a study of the need for the district.

In the majority of the special act districts covered by this study (see Table VIII) the governing body is the board of supervisors. In these cases it has been customary for the board to pass a resolution declaring the district operative and duly organized. In at least two special act districts (Sutter County Water Agency and Nevada County Water Agency) this action has not been taken and the districts, for all practical purposes, are inactive. Two other districts (Siskiyou County Flood Control and Water Conservation District and Sierra County Flood Control and Water Conservation District) have been officially recognized by board resolution but are inoperative. There is no requirement that districts created by special act be activated within any specific time period (except for those requiring an election to be held within a specific period following the passage of the act).

Area

In each of the 55 special district acts in this study the area included in the districts is specifically set forth and is described in Table VII on page 47. The Legislature itself defines the original boundaries of special act districts.

None of the general district acts can prohibit the Legislature from superimposing a special act district over an existing general act district. This fact seems to be one of the major reasons for creation of a number of these districts by means of special acts. That is, a special district act may be, in practical terms, the only way to create a countywide district without raising conflicts with numerous existing general act districts, each with different overlap provisions.

One special act district, in its response to the committee questionnaire, stated that a general act district had announced it would withhold approval of formation of the water district under a general district act and, therefore, a special district act was the simplest means of overcoming this opposition.

Another major reason for formation by special district act is (rather than replacing existing districts) to specifically provide larger entities for the purpose, for example, of contracting with the federal or state government. Most of these special district acts have express provisions providing that they *do not* impair the existence of general act districts within the special act districts.

TABLE VII. AREA INCLUDED IN SPECIAL ACT DISTRICTS *

Special act districts	Number of districts	Countywide	Part of one county	More than one county
County Flood Control and Water Conservation Districts	22	Alameda; Contra Costa; Lake; Marin; Mendocino; Monterey; Napa; San Joaquin; San Luis Obispo†; San Benito; Santa Barbara; Santa Clara; Santa Cruz; Sierra; Sonoma; Tehama (16)	Plumas; Riverside; Siskiyou; Yolo (4)	Lassen-Modoc; Solano (Solano, Yolo Counties) (2)
Flood Control Districts	11	Del Norte County†; Humboldt County†; Orange County; San Bernardino County; San Diego County†; San Mateo County; Ventura County† (7)	American River (Sacramento County); Fresno Metropolitan; Los Angeles County; Morrison Creek (Sacramento County) (4)	None
Water Agencies	19	Alpine County; Amador County; El Dorado County; Kern County; Nevada County; Placer County; Sacramento County; Santa Barbara County; Shasta County; Sutter County (10)	Contra Costa County; Crestline-Lake Arrowhead (San Bernardino County); Desert (Riverside County); Mariposa County; Mojave (San Bernardino County); San Gorgonio Pass (Riverside County); Upper Santa Clara Valley (Los Angeles County) (7)	Antelope Valley-East Kern (Los Angeles, Kern Counties); Yuba County‡ (2)
Other	3	None	Orange County Water District; Palo Verde Irrigation District (Riverside County) (2)	Kings River Conservation District (Kings, Tulare, Fresno Counties) (1)

* Based upon district act as last amended by Legislature. Some districts may annex and exclude area without action of Legislature. (See Chapter VI)
† Excluding only offshore islands.
‡ Annexation of areas in other counties permitted by act.

TABLE X. POWERS—Continued

B. SPECIAL ACT DISTRICTS

1. County Flood Control and Water Conservation Districts

	Eminent domain*	Storage and distribution of water	Ground water replenishment	Hydroelectric power
Alameda	Yes, but outside county requires board of supervisors' consent	Yes	Yes	No
Contra Costa	Yes, except property of city and county or municipal utility district	Yes	Yes	No
Lake	Yes, but outside county requires board of supervisors' consent	Yes	Not specified	No
Lassen-Modoc	Yes, except water rights and water facilities, but limited to district (CCP)	Yes	Yes	Yes (wholesale only)
Marin	Yes, except city and county or public district	Yes	Yes	No
Mendocino	Yes (CCP)	Yes, but limited to flood and storm waters	Yes	No
Monterey	Yes, but outside county for recreation requires board of supervisors' consent	Yes	Yes	No
Napa	Yes	Yes	Yes	No
Plumas	Yes, except water rights and water facilities, but outside agency requires board of supervisors' consent. (CCP)	Yes	Yes	Yes (wholesale only)
Riverside	Yes, but subject to certain specific limitations	Yes	Yes	No
San Benito	Yes, except Pacheco Pass Water District property	Yes	Yes	No
San Joaquin	Yes, except property of city and county or municipal utility district, but limited to district	Yes	Yes	No
San Luis Obispo	Yes	Yes	Yes	No
Santa Barbara	Yes, except property of city and county or municipal water district	Yes	Yes	No
Santa Clara	Yes, except in other water conservation districts within county	Yes	Yes, and also has related assessment power ("pump tax")	No
Santa Cruz	Yes (CCP)	Yes	Yes	No
Sierra	Yes, but outside county requires board of supervisors' consent (CCP)	Yes	Yes	Yes (wholesale only)
Siskiyou	Yes, except water rights and water facilities, but limited to county (CCP)	Yes	Yes	Yes (wholesale only)
Solano	Yes, except public water development projects, but limited to district (CCP and Const.)	Yes	Yes	No
Sonoma	Yes (CCP)	Yes	Yes	Yes
Tehama	Yes, except water rights and water facilities, but limited to county (CCP)	Yes	Yes	Yes
Yolo	Yes, but outside county requires board of supervisors' consent	Yes	Yes, and also has related assessment power ("pump tax")	No

* Unless otherwise stated, the provision is general in scope.
CCP: Expressly incorporates Code of Civil Procedure, Part 3, Title 7 (Sections 1237 to 1266.2).
Const.: Expressly incorporates California Constitution, Article I, Section 14.

TABLE X. POWERS—Continued

B. SPECIAL ACT DISTRICTS—Continued

2. Flood Control Districts

	Eminent domain*	Storage and distribution of water	Ground water replenishment	Hydroelectric power
American River	Yes	Only storage	Not specified	Yes
Del Norte County	Yes	Yes	Yes	No
Fresno Metropolitan	Yes	Only storage of flood, storm and other waste waters	Yes, but limited to flood, storm and other waste waters	No
Humboldt County	Yes	Yes	Yes	Yes (wholesale only)
Los Angeles County	Yes (CCP)	Only storage of flood, storm and other waste waters (and imported and reclaimed water when furnished without cost to district)	Yes, but limited to flood, storm and other waste waters (and imported and reclaimed water when furnished without cost to district)	No
Morrison Creek	Yes (CCP)	Yes, but limited to flood and storm waters	Yes, but limited to flood and storm waters	No
Orange County	Yes (not beyond 15 miles outside district) (CCP)	Yes	Yes	No
San Bernardino County	Yes	Yes	Yes	No
San Diego County	No	No	No	No
San Mateo County	Yes, but outside county requires board of supervisors, and city council consent	Yes	Yes	No
Ventura County	Yes	Only storage	Yes	No

3. Water Agencies

Alpine County	Yes, except public water use property, but outside county requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Amador County	Yes, but outside county requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Antelope Valley-East Kern	Yes, but limited to agency	Yes	Yes	No
Contra Costa County	Yes, except public water use property, but limited to agency (CCP and Const.)	Yes	Yes	No
Crestline-Lake Arrowhead	Yes, but outside agency requires board of supervisors' consent	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Desert	Yes, but limited to agency	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
El Dorado County	Yes, except public water use property, but limited to agency (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Kern County	Yes, but outside county requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Mariposa County	Yes, except public water use property, (CCP and Const.)	Yes	Yes	Yes; also can sell rights to use falling water
Mojave	Yes, except public water use property, but limited to agency (CCP and Const.)	Yes	Yes, and also has related assessment power ("pump tax")	Yes (wholesale only)
Nevada County	Yes, except public water use property; outside agency requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water

* Unless otherwise stated, the provision is general in scope.
CCP: Expressly incorporates Code of Civil Procedure, Part 3, Title 7 (Sections 1237 to 1266.2).
Const.: Expressly incorporates California Constitution, Article I, Section 14.

TABLE X. POWERS—Continued

B. SPECIAL ACT DISTRICTS—Continued

3. Water Agencies—Continued

	Eminent domain*	Storage and distribution of water	Ground water replenishment	Hydroelectric power
Placer County	Yes, except public water use property; outside agency requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Sacramento County	Yes, except public water use property (CCP and Const.)	Yes	Yes	No
San Gorgonio Pass	Yes, but limited to agency	Yes	Yes	Yes (wholesale only); also can sell rights to use falling water
Santa Barbara County	Yes, except public water use property, (CCP and Const.)	Yes	Yes	Yes, but limited to incidental development and use of agency
Shasta County	Yes, except public water or power use property, but outside county requires board of supervisors' consent (CCP and Const.)	Yes	Yes	Yes, but limited to incidental development (wholesale only); also can sell rights to use falling water
Sutter County	Yes, but limited to agency (CCP and Const.)	Yes	Yes	No
Upper Santa Clara Valley	Yes, but outside agency requires board of supervisors' consent	Yes	Not specified	Yes (wholesale only); also can sell rights to use falling water
Yuba County	Yes, but outside county requires board of supervisors' consent; (CCP and Const.)	Yes	Yes	Yes, but limited to incidental development; also can sell rights to use falling water

TABLE XI. SUMMARY OF RESTRICTIONS ON EMINENT DOMAIN POWER OF SPECIAL ACT DISTRICTS

	Number of districts	Limited to district	Outside district—requires board of supervisors consent	Outside of county—requires board of supervisors consent§
County flood control and water conservation	22	Solano, Lassen-Modoc, San Joaquin, Tehama* (4)	Plumas† (1)	Alameda, Lake, Monterey‡, Sierra, Yolo (5)
Flood control	11	None	None	San Mateo County (1)
Water agencies	19	Antelope Valley-East Kern, Contra Costa County, Desert, El Dorado County, Mojave, San Gorgonio Pass, Sutter County (7)	Crestline-Lake Arrowhead, Placer County†, Upper Santa Clara Valley, Nevada County, Sacramento County† (5)	Alpine County, Amador County, Kern County, Shasta County, Yuba County (5)
Other	3	None	None	None

* Countywide district with actual wording of act limiting to county.
† Countywide districts, therefore, limitation effective only in counties other than those in which district is located.
‡ Limitation applies only to condemnation for recreation purposes.
§ Supervisors of affected county in which condemned property is located.

May 22, 1963

The Honorable Walter W. Stiern
Senator - 39th District
State Capitol
Sacramento, California

Dear Sir:

We understand and appreciate the reasons for your introduction of Senate Bill 1524 and of your detailed explanation to me as to the opportunity that this bill should afford the Antelope Valley-East Kern Water Agency in providing a means for making amendments to the Antelope Valley-East Kern Water Agency Law which could be beneficial to the taxpayers and residents.

We have followed your suggestion that meetings be conducted in the East Kern area and with East Kern representatives. Meetings have been held in the East Kern area and two meetings have been held in Lancaster with East Kern representatives for the purpose of discussing budgetary and planning problems which were associated with the request made by East Kern representatives urging you to introduce Senate Bill 1524.

We list below some of the reasons we have learned which stimulated the request for withdrawal of East Kern territory from the Antelope Valley-East Kern Water Agency.

1. Kern County Water Agency overlaps Antelope Valley-East Kern Water Agency, in which area property owners are exposed to a tax from both water agencies. Note: In Kern County Water Agency this tax is limited to 5¢, and AVEK tax is keyed to the State Contract, engineering and administrative expenses.

2. East Kern property owners question the need or equity of creating an Accumulative Capital Outlay Fund as has been suggested wherein taxes would be collected for the purpose of paying for future State contract assessments and for the piping system which may eventually be needed to convey water from the State project to communities in AVEK. Note: Some people, including large industries, believe that this type of financing is contrary to present day practices and that they could invest the money more profitably than could AVEK. Proponents argue that the total cost of AVEK's conveyance system would be less than one-half of the total cost if financed through the Accumulative Capital Outlay fund rather than through a bond issue, and that the money would be available when needed.

3. Some people believe that AVEK has not presented a sufficiently complete plan of water need and utilization in the various areas and that more time is needed to study the matter. Note: The agency believes that its program is well founded; that an ultimate need has been shown for water throughout the agency; and, that AVEK has considered and evaluated many methods for the importation, distribution and conservation of water which is essential to the contractual requirement with the State of determining:

   (1) The location of delivery structures for delivery of project water to it.

   (2) The time at which project water is first to be delivered through each such delivery structure.

   (3) The maximum instantaneous flow capacity in cubic feet per second to be provided in each such delivery structure.

(4) The maximum amount of water in acre-feet to be delivered in any one month through each such delivery structure.

(5) The total combined maximum instantaneous flow capacity in cubic feet per second to be provided by all such delivery structures.

(6) The total maximum amount of water in acre-feet to be delivered in any one month through all such delivery structures.

(See item 10 (b) Water Supply Contract between the State of California Department of Water Resources and Antelope Valley-East Kern Water Agency dated September 20, 1962)

4. Some residents and taxpayers in AVEK believe that the local conveyance system, which admittedly will be needed to transport State water to water companies and districts should be constructed and financed through a series of Improvement Districts in order to avoid having either a general obligation bond issue or an Accumulative Capital Outlay fund which would be financed out of general agency taxes. Note: This method of financing local system improvements has been considered by Antelope Valley-East Kern Water Agency among other plans. No particular plan has been adopted by AVEK's Board of Directors. The creation of an Accumulative Capital Outlay Fund has been greatly misunderstood since its purpose was to provide funds to build only those portions of a primary conveyance system which will definitely be needed by 1972 of benefit to the entire agency. Extensions from this primary system can very equitably be financed through the creation of Improvement Districts wherein only the immediately benefitted properties would be subject to being assessed.

We believe there is a substantial agreement among the parties that the contract executed by AVEK with the State Department of Water Resources is beneficial to all of the AVEK area and that taxes for this purpose would not be objectionable.

COMPROMISE IS FEASIBLE

In reviewing the above, we find that proper solutions to financing and planning can be provided which should substantially eliminate the objections by making amendments to Senate Bill No. 1524 which could provide equity and harmony without dismembering this agency. Dismemberment of the Agency, we believe, would create additional problems and inequities. Following is a proposed amendment to Senate Bill 1524.

* * * * * * * * *

PROPOSED S B 1524 AMENDMENT

Section 1. Section 49 of Chapter 2146 of the Statutes of 1959 is amended to read:

Section 49. Sections 49 to 96, inclusive, of this act are designated and may be cited and referred to as the "Antelope Valley-~~East Kern~~ Water Agency Law." References to "this act" or "herein" in Sections 49 to 96, inclusive, are to the Antelope Valley-~~East Kern~~ Water Agency Law.

Notwithstanding any other provision of this act, all lands lying within the County of Kern ~~are hereby excluded from the Antelope Valley Water Agency.~~ which are included within the present boundaries of the Antelope Valley-East Kern Water Agency, or which may subsequently be annexed thereto, shall participate in the Agency only to the extent that said lands are obligated under contracts with the State of California for the importation of water; and for the necessary performance of all functions of the Agency incidental to the importa-

tion of water including management of the ground water basin. Such powers include, but are not limited to those set forth in Section 61 of said Agency Law, except that no taxes shall be levied on any property in Kern County which is within the Agency, or which may hereafter be annexed to the Agency, for the construction of a system to convey water from the State project, except through the formation of Improvement Districts pursuant to Section 68 and Section 69 of the Antelope Valley-East Kern Water Agency Law or through the Improvement Act of 1911.

* * * * * * * *

ORIGIN OF AVEK

The Antelope Valley-East Kern Water Agency was created in 1959 by the Legislature. It did not require a vote of the people to activate it. The first Board of Directors was appointed by the Governor and all subsequent Board members have been approved by election procedures.

AVEK was created at the same session of the Legislature which authorized the California Water Resources Development Bond Act which was ratified by the voters of the State. Within this area the Water Bond Act was approved by a two to one majority of voters. This is implied approval of the Antelope Valley-East Kern Water Agency Law. A great deal of publicity was given to this agency and especially to the proceedings of the contract signing ceremony to which all communities within AVEK were invited

to participate. No one, verbally, or otherwise, offered any criticism or opposition to this Agency's entering into this historic contract.

Under the Antelope Valley-East Kern Water Agency Law, all property in the agency is obligated to pay taxes to support payments under the contract in the same manner as though a bond election had been held.

The court has determined that creation of an entity such as AVEK by the Legislature without submitting the proposal to the voters is just as valid since the legislative body is, in fact, composed of delegated representatives of the people. The reasons which were valid in 1959 for adoption of the Antelope Valley-East Kern Water Agency Law are valid today, and will be valid for all time, since these reasons originate from physical laws associated with hydrology, geology, economics and equity. The Antelope Valley-East Kern Water Agency was purposely organized to embrace substantially all of the ground water basin and sub-basins for the following reasons:

A. The Antelope Valley ground water basin is seriously overdrawn and has been historically overdrawn primarily through excessive agricultural pumping. The ground water resource has been a necessary and essential reason why the economy of this area has reached a level in assessed valuation and wealth capable of supporting the present water supply contract. However, the continued pumping of the ground water basin without restriction would destroy the basin and the economy it has supported unless supplemental water is made available and pumping of the basin is eventually limited to the safe yield of the basin. The importation of Feather River water and the delivery of such water to areas of need within the agency puts into focus the management of the water basin resources.

B. The imported water must be marketable and a means must be found to encourage the use of imported water in lieu of pumping. AVEK Agency Law has the power to enter into contracts with extractors of water from the ground water basin to take imported water in lieu of pumping. It does not have the power to impose a tax on pumping water nor could such power be exercised until supplemental water supplies are available.

C. The water basin of Antelope Valley does not drain to the ocean and will therefore, have to be managed to prevent over-recharge or overdrafting.

D. AVEK must take agreed upon quantities of water each year; occasionally some water will not be saleable and should be injected into the water basin.

RECLAMATION OF WATER & RECHARGE

It is likely that all of the imported water will be used for domestic purposes. The waste waters from communities (sewage effluent and storm waters) will have to be recovered which may be as much as 40% of the amount which will be imported. It is entirely feasible to treat this water and to put it to beneficial use. The Agency has powers necessary for this purpose. These waters if used for agricultural purposes have a particular economic advantage because of their high content of nitrogen and phosphate and require inexpensive treatment. With more elaborate treatment these waste waters can be used for some industrial purposes and with complete treatment they can be used for some domestic purposes. AVEK has powers which appear to be sufficient to recharge the ground water basin with recaptured flood and waste waters, thereby augmenting the ground water supply, preventing damage to property, and providing safety to the inhabitants of the area as well as making it possible to industrialize and urbanize areas now subject to inundation.

AVEK has entered into a contract with the United States Geological Survey to expedite and complete a hydrological and geological survey of the basin and watershed which will be of material benefit in the management of the ground water basin. This survey will be completed within about two and one-half years and will aid in determining the following:

A. Permeable areas where surface waters can be percolated into the aquifers.

B. The transmissability of ground formations and the existence of formations which will serve to transmit water from one location to another.

C. The direction of flow and movement of ground water.

D. Definition and extent of the boundaries of the basin and sub-basins.

E. The capacity of the basin and the possible use of the basin as a reservoir where surplus imported water may be stored for the benefit of all properties within AVEK and for use as a peaking reservoir to meet daily and seasonal demands which fluctuate widely and which may obviate the building of extra large pipe lines from the State facilities which otherwise would be needed for peaking purposes.

To highlight the above positive benefits we can easily predict what consequences would follow if the lands in Kern County were removed from the Antelope Valley-East Kern Water Agency: viz

1. No taxing entity would exist in Southeast Kern area capable of contracting with the State for water unless a zone of benefit were created within that part of Kern County. The Antelope Valley-East Kern Water Agency would request that the contract be modified to reduce the amount from 120,000 acre feet to about 110,000 acre feet, all of which water would be utilized in lands in Los Angeles County.

2. The cost of transporting water from the State facilities would be increased to both areas, especially to the Kern County portion since these lands are farther removed from the State facility.

3. Extraction of water from the basin on either side of the county would be done adversely to users which would result in an adjudication of water rights in the basins which could be avoided if all lands were in one Agency as it has been avoided in the Orange County Water District.

4. The possibility of the Antelope Valley-East Kern Water Agency and the Kern County Water Agency of finding a market for the water would be lessened since it will be difficult to negotiate contracts to take imported water in lieu of pumping when there are two agencies having water management regulation over portions of the same general basin. This situation would probably result in the State Department of Water Resources attempting to manage the basin, or it might be necessary to create a water replenishment district which would overlap existing districts.

ASSEMBLY INTERIM COMMITTEE ON WATER

The proposal to separate AVEK coming as it does immediately after the exhaustive and comprehensive investigation made by the Assembly Interim Committee on Water pursuant to House Resolution 179 of 1961 is incongruous. I wish to make reference herein to the report entitled, "Ground Water Problems in California", which was published as Volume 26, No. 4, Assembly Interim Committee Reports 1961-1963.

Water Engineers and Attorneys had hoped that this extraordinary, comprehensive and intelligent report would serve as a guide to the enactment of future legislation relating to the difficult subject of ground water laws, ground water conditions and ground water basin management.

It is evident that the people who have urged introduction and passage

of Senate Bill 1524 are not as well informed as the Legislature on this important subject. SB 1524 being inconsistent with the findings of the Assembly Interim Committee on Water should for no other reason be dismissed.

It would be well worth quoting the Letter of Transmittal of the above mentioned report directed to the Speaker of the Assembly and the Members of the Assembly. The facts summarized by this letter apply to the Antelope Valley and East Kern Water basin.

* * * * * * * *

October 5, 1962

Hon. Jesse M. Unruh, Speaker of the Assembly

Members of the Assembly, State Capitol, Sacramento, California

Gentlemen: "The Assembly Interim Committee on Water submits herewith its report on Ground Water Problems in California. This report and the hearings which preceded it were authorized by House Resolution No. 179, 1961. Also included in this report are the committee's consideration of Assembly Bills 3042 and 1995 and Assembly Concurrent Resolution 120.

As more fully set forth in the body of the report and the Summary, your committee has thoroughly studied the legal, physical, economic management and other aspects of ground water management in California. No legislation is being recommended because the approaches to ground water management currently used in the State, when properly understood and applied, appear to be adequate. If specific problems arise in the future, legislation can be drafted to handle them at that time. In the meantime, your committee finds much progress is being made on ground water management and feels that state agencies, local districts and the public can gain further experience and make substantial progress from continuation of the present approaches.

This report is partially an educational document intended to explain ground water management problems for the Legislature and the public by evaluating the ground water management tools now available in California and by

synthesizing the various technical disciplines involved into a comprehensive, integrated treatment of all facets of ground water management. From its two-year study, the committee concludes that local, BASINWIDE DISTRICTS can best replenish overdrawn ground water basins by using revenues collected through replenishment assessments (1) to finance purchase of water for spreading, (2) to equalize the burden of using high cost imported surface supplies with low cost ground water and (3) to transport surface supplies of water whenever ground water basins have inadequate transmission capacity. The objective is maximum utilization of the low cost ground water basins without destroying the basins.

Your committee wishes to express its appreciation to the numerous organizations, state agencies and to private citizens who have contributed generously of their time and talents. The chairman and the committee wish to thank the committee staff, the Legislative Counsel Bureau and the office of the Legislative Analyst for their services."

Respectfully submitted,

Carley V. Porter, Chairman
Assembly Interim Committee on Water

Paul J. Lunardi, Vice Chairman

Jack A. Beaver
Frank P. Belotti
John L. E. Collier
Mrs. Pauline L. Davis
(With Reservations)
Houston I. Flournoy
Myron H. Frew
Charles B. Garrigus
Vernon L. Kilpatrick
Frank Lanterman
Harold K. Levering
Lloyd W. Lowrey
Robert T. Monagan
Eugene G. Nisbet
Jack Schrade
Harold T. Sedgwick
Bruce Sumner
John C. Williamson
Edwin L. Z'Berg

* * * * * * *

RECOMMENDATIONS

1. Amendment to Senate Bill 1524

   Since it appears that no one is particularly dissatisfied with participation in the California Water Plan and importing water into East Kern areas pursuant to the AVEK-State Water Supply Contract, and since the plans of this agency to construct a conveyance system needed to transport water from the State

facilities to the various communities, if financed out of an agency wide ad valorum tax is questioned, we believe the objections would be met by adoption of the amendment to Senate Bill 1524 suggested on pages 4 and 5 hereof and attached hereto.

2. Tax Reduction

Members of the Board of Directors have been polled to ascertain their possible position with respect to the adoption of a final budget. It would appear that the Accumulative Capital Outlay Fund will not be approved for the purpose of financing a water conveyance system. Rather the conveyance system would be financed through formation of improvement districts in which the costs would be assessable only to the parcels of land directly and generally benefitted. Also, water users would pay a substantial share of the cost of the State Project. These methods of financing would minimize the tax rate.

Yours very truly,

Al E. Skelton, President
Antelope Valley-East Kern Water Agency

Recommended by:

Randle G. Lunt
Chief Engineer & General Manager

RGL:bj

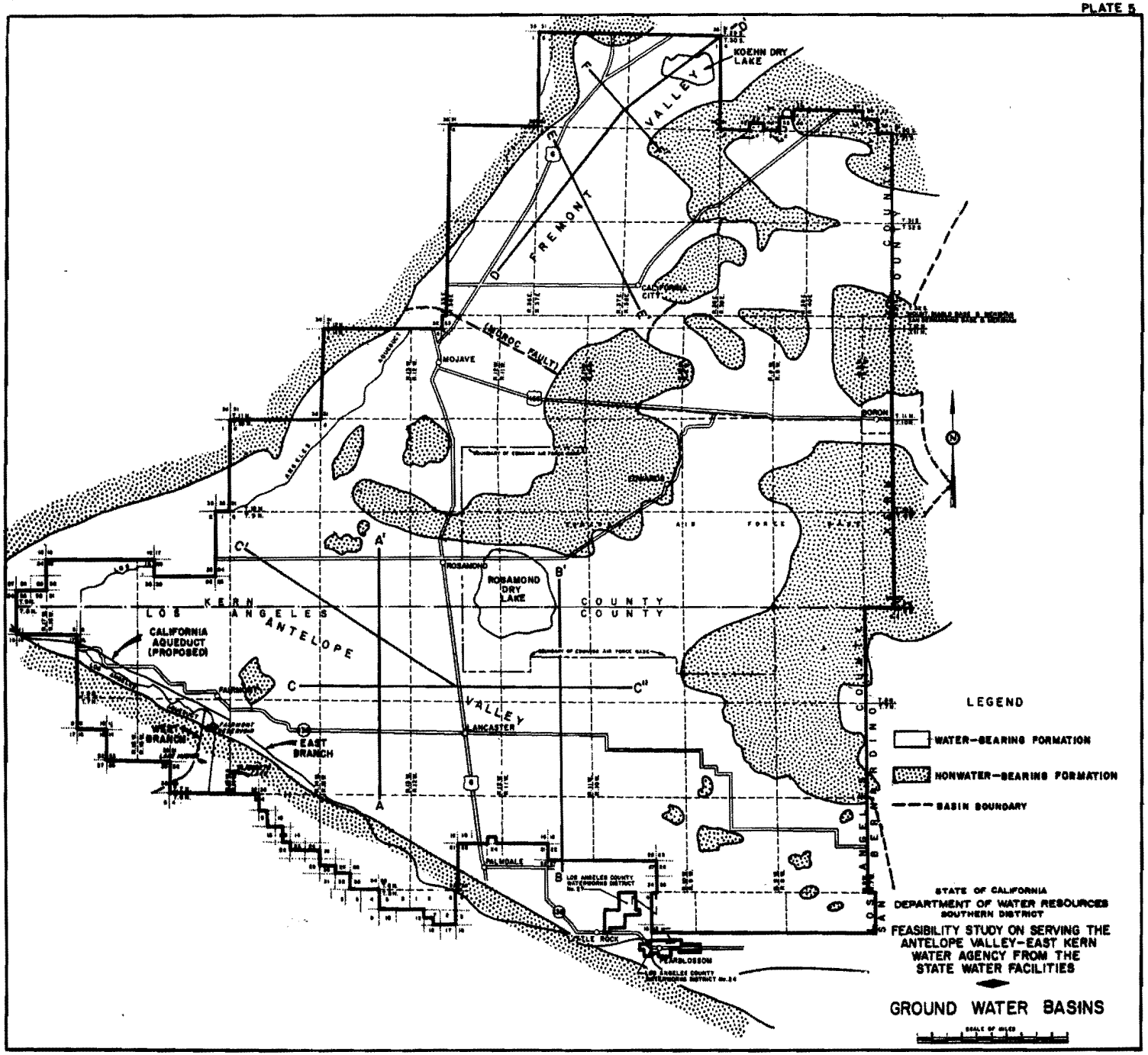
PROPOSED AMENDMENT
to
Senate Bill 1524

Section 1. Section 49 of Chapter 2146 of the Statutes of 1959 is amended to read:

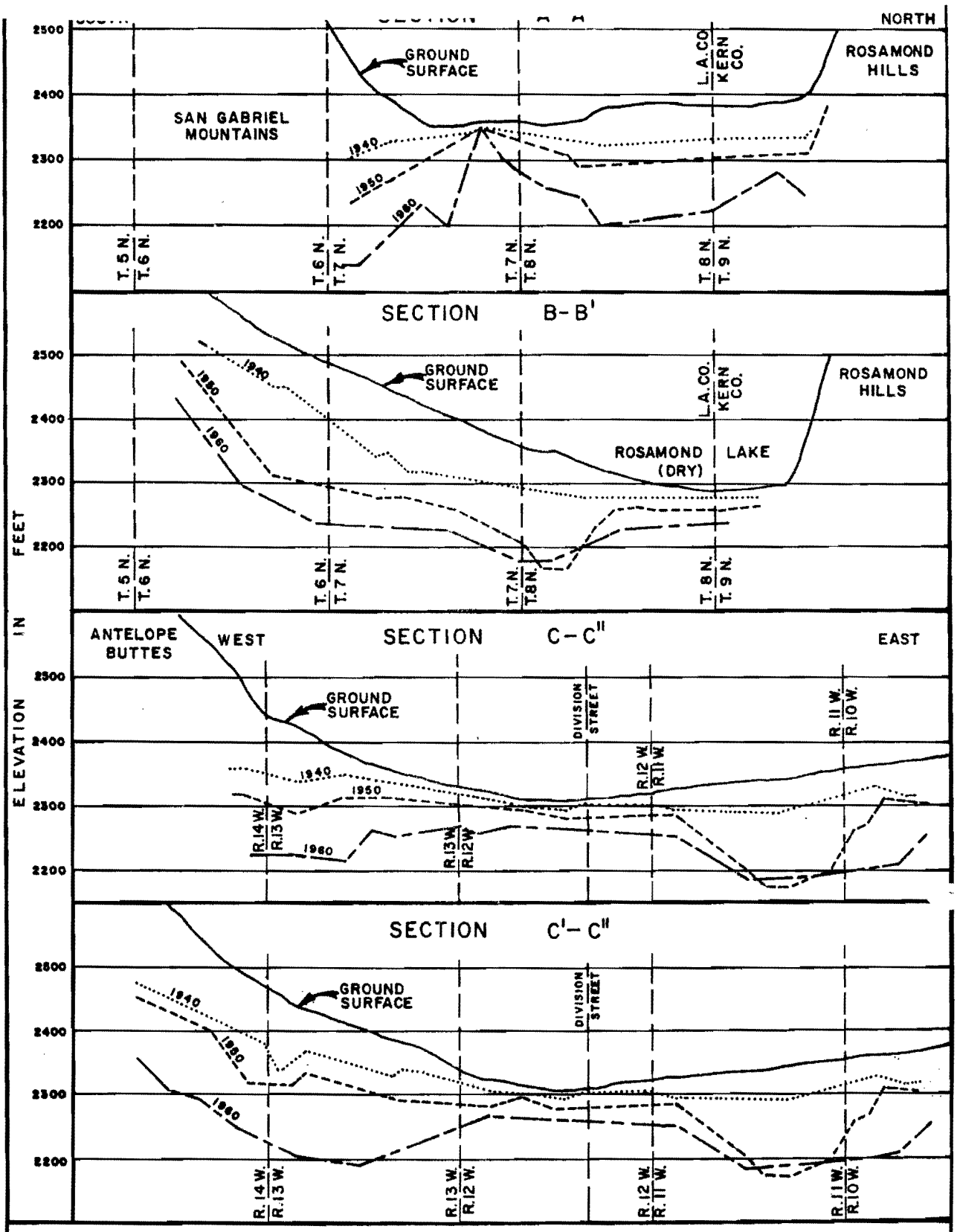
Section 49. Sections 49 to 96, inclusive, of this act are designated and may be cited and referred to as the "Antelope Valley-~~East Kern~~ Water Agency Law." References to "this act" or "herein" in Sections 49 to 96, inclusive, are to the Antelope Valley-~~East Kern~~ Water Agency Law.

Notwithstanding any other provision of this act, all lands lying within the County of Kern ~~are hereby excluded from the Antelope Valley Water Agency,~~ which are included within the present boundaries of the Antelope Valley-East Kern Water Agency, or which may subsequently be annexed thereto, shall participate in the Agency only to the extent that said lands are obligated under contracts with the State of California for the importation of water; and for the necessary performance of all functions of the Agency incidental to the importation of water including management of the ground water basin. Such powers include, but are not limited to those set forth in Section 61 of said Agency Law, except that no taxes shall be levied on any property in Kern County which is within the Agency, or which may hereafter be annexed to the Agency, for the construction of a system to convey water from the State project, except through the formation of Improvement Districts pursuant to Section 68 and Section 69 of the Antelope Valley-East Kern Water Agency Law or through the Improvement Act of 1911.

PLATE 5



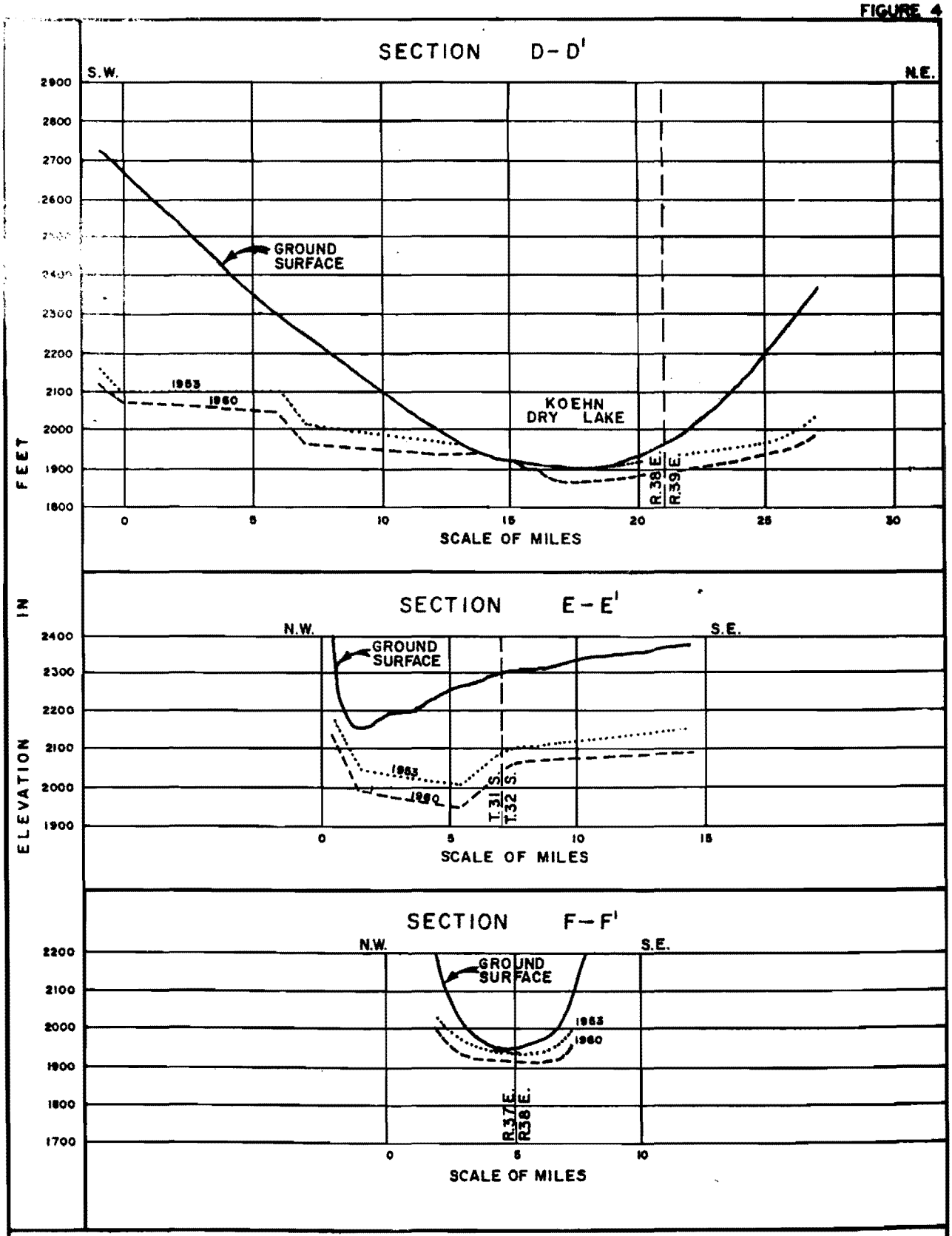
PWS-0114-0119



ANTELOPE VALLEY BASIN
GROUND WATER PROFILES, 1940, 1950, AND 1960

NOTE: SECTIONS DELINEATED ON PLATE 8

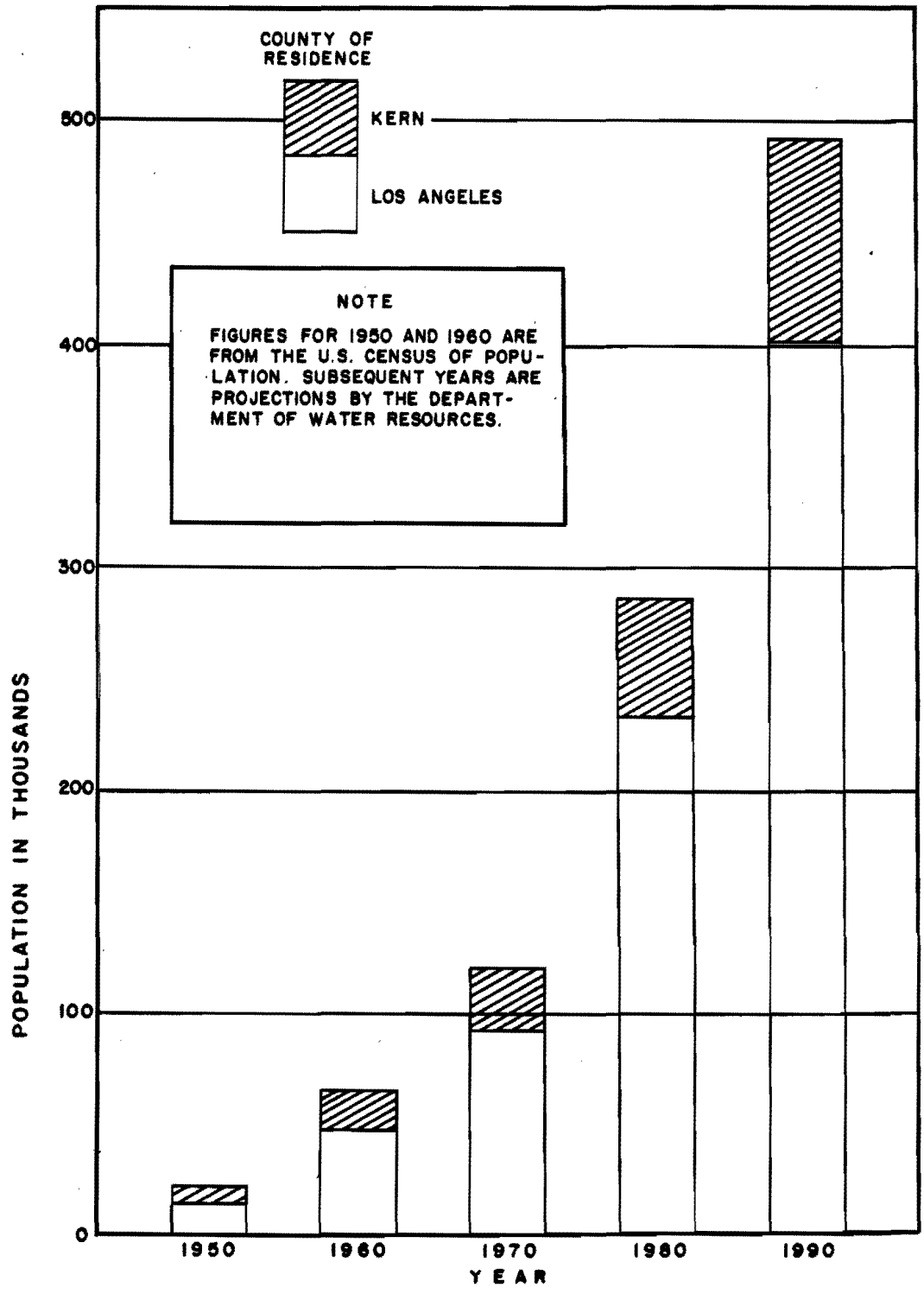
FIGURE 4



FREMONT VALLEY BASIN
GROUND WATER PROFILES, 1953 AND 1960

NOTE: SECTIONS DELINEATED ON PLATE 8

FIGURE



HISTORIC AND PROJECTED POPULATION IN THE ANTELOPE VALLEY —— EAST KERN WATER AGENCY

CURRENT ASSESSED VALUATION AND ESTIMATED MARKET VALUE, 1962–63

COUNTY	ASSESSED VALUATION IN WATER AGENCY AREA	PERCENT OF MARKET VALUE 1/	ESTIMATED MARKET VALUE
Kern	$36,587,250	21.2%	$172,581,360
Los Angeles	113,539,205	23.3%	487,292,700
Total	$150,126,455		$659,874,060

1/ *Source: California State Board of Equalization Annual Report 1959-60, pp. 8-9.*

TABLE 20 1/

PRESENT AND PROJECTED ASSESSED VALUATIONS

FISCAL YEAR	LOS ANGELES COUNTY AREA			KERN COUNTY AREA			TOTAL ASSESSED VALUATION IN WATER AGENCY AREA
	POPULATION	ASSESSED VALUE PER CAPITA	ASSESSED VALUATION	POPULATION	ASSESSED VALUE PER CAPITA	ASSESSED VALUATION	
1959-60	46,900	$2,160	$101,182,000	18,100	$1,710	$ 30,951,000	$ 132,133,000
1969-70	92,000	2,160	198,700,000	28,000	1,710	47,900,000	246,600,000
1979-80	232,000	2,160	501,100,000	53,000	1,710	90,600,000	591,700,000
1989-90	401,000	2,160	866,200,000	89,000	1,710	152,200,000	1,018,400,000

1/ *Source: DWR Report on Feasibility of Serving AVEK From State Water Facilities, p.58.*

TABLE 28 1/

TAX RATE NECESSARY FOR CAPITAL REPAYMENT OF LOCAL CONVEYANCE FACILITIES AND STATE WATER FACILITIES

YEAR	ASSESSED VALUATION (000's)	CAPITAL REPAYMENT					
		LOCAL CONVEYANCE FACILITIES		STATE WATER FACILITIES		TOTAL	
		AMOUNT (000's)	TAX 2/ RATE	AMOUNT (000's)	TAX 2/ RATE	AMOUNT (000's)	TAX 2/ RATE
1960	$ 132,133	–	–	–	–	–	–
1971	281,100	$ 451	$0.16	$1,012	$0.36	$1,463	$0.52
1980	591,700	953	0.16	1,355	0.23	2,308	0.39
1990	1,018,400	1,371	0.13	1,518	0.15	2,889	0.28

1/ *Source: DWR Report on Feasibility of Serving AVEK From State Water Facilities*
2/ *Dollars per $100 assessed valuation.*

May 29, 1963

Honorable Walter W. Stiern
Senator - 34th Senatorial District
State Capitol
Sacramento, California

Subject: Senate Bill 1524

Dear Sir:

Both Mr. Cooper and I appreciate the consideration you showed us in giving us a full opportunity to discuss with you Senate Bill 1524.

Last night our Board of Directors met and considered the attached Resolution, which we have marked in red color, "A". We believe this resolution essentially satisfied the conditions on which we reached agreement in our discussion with you on Monday; and, I believe that the Board of this agency would have adopted it were it not for the objections raised by Mr. Sturtevant, the apparent spokesman for several large companies.

In lieu of Resolution "A", he proposed Resolution "B" and after some discussion, the Board of Directors adopted it. A signed copy of which is enclosed. The Resolution was drafted by Mr. Sturtevant, and others, during a recess of the regular meeting, which perhaps explains some of the grammatical construction. I believe the intention of the group represented by Mr. Sturtevant was to request that Senate Bill 1524 be withdrawn from further Legislative consideration and the committee be appointed as you proposed.

Mr. Sturtevant implied that the matter of severence of the agency was the principal topic for the committee to discuss.

Some of the reaction from AVEK Board members, and especially one of the Board members who is a large property owner in Kern County as well as Los Angeles County, was that this Board cannot carry out its functions and meet its obligations with a continued threat that severence of the agency was a goal of the committee. The Director pointed out that if the Mojave area wished to withdraw from the agency they could file a petition and undoubtedly the Board would grant it.

Mr. Sturtevant and his committee agreed with the Board of Directors to a one year study period rather than a two year period.

We are not certain whether or not this agency has the authority to expend funds to support the functioning of the committee. Therefore, it is suggested that in your proposed Resolution requesting this Board to create a committee that the matter of financing the nominal clerical and other expenses of the committee be considered as is proposed in our Resolution A.

Yours very truly,

Randle G. Lunt
Chief Engineer & General Manager

RGL:bj

Attach

A

RESOLUTION R-63-12

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY ESTABLISHING A POLICY IN RELATION TO SENATE BILL 1524

WHEREAS, the Board of Directors of the Antelope Valley-East Kern Water Agency approved a PRELIMINARY Budget for the 1963-1964 fiscal year in which a tentative proposal was made to create an Accumulative Capital Outlay Fund for the purpose of setting aside funds for the construction of a water conveyance system which will be needed to transport water from the State Water Project to various communities in the Antelope Valley-East Kern Water Agency in 1972 and subsequent years, and

WHEREAS, the principle of accumulating tax revenues to provide funds for future construction has been little used and is not well understood and in fact was a major reason why certain taxpayers requested Senator Walter W. Stiern, 34th Senatorial District, Bakersfield, California, to introduce Senate Bill 1524 on April 26, 1963 which would change the name of the Agency to Antelope Valley Water Agency and exclude all lands in Kern County from the Agency, and

WHEREAS, the removal of such lands would seriously effect the contract between this agency and the State Department of Water Resources and would materially endanger the ability of this agency to market the water for which it has contracted since the management of the basin would be vested in more than one agency thereby making it impossible for one agency to enter into contracts with pumpers to take imported water in lieu of pumping and would render it difficult, if not impossible, to utilize the ground water basin as a reservoir for peaking in which replenishment water could be stored, and

WHEREAS, the public interest would not best be served by the removal of the East Kern area from the Antelope Valley-East Kern Water Agency, and

WHEREAS, it appears that the public needs to be better informed, especially the major taxpayers as to the functions and purposes of the agency, and

WHEREAS, the major taxpayers have filed with this agency a statement which requests the agency to establish a study committee and to withhold action on establishment of an Accumulative Capital Outlay fund or the expenditure of any funds for the said AVEK water conveyance system for a two year period.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of the Antelope Valley-East Kern Water Agency as follows:

1. That the Honorable Walter W. Stiern, Senator, 34th Senatorial District, who is the author of Senate Bill 1524 be requested to amend said Senate Bill 1524 as follows:

R-63-12 (continued)

SENATE BILL NO. 1524

Section 1. ~~Section 49 of Chapter 2146 of the Statutes of 1959 is amended to read:~~

~~Section 49. Sections 49 to 96, inclusive, of this act are designated and may be cited and referred to as the "Antelope Valley-East Kern Water Agency Law." References to "this act" or "herein" in Sections 49 to 96, inclusive, are to the Antelope Valley-East Kern Water Agency Law.~~

~~Notwithstanding any other provisions of this act, all lands lying within the County of Kern are hereby excluded from the Antelope Valley Water Agency.~~

That Section 61.2 be added to the Antelope Valley-East Kern Water Agency Law, Chapter 2146, Statutes of 1959 to read:

Notwithstanding other provisions of law, the Agency shall not levy a tax for a period of two years from the effective date of this amendment for the purpose of accumulating funds, pursuant to provisions of Title 5, Division 2, Part I of Chapter 4, Article 4 of the Government Code, which would be used for the construction of a water system to convey water from the State Water Project to various communities within the Agency. (Sections 53730 through Section 53537 of the Government Code)

2. To request Senator Walter W. Stiern to take action deemed necessary and appropriate to authorize the Board of Directors of this Agency to establish an advisory committee consisting of principle taxpayers and other persons deemed to be qualified and interested in local governmental affairs to study and report upon the functions and services of this agency, in lieu of referring Senate Bill 1524 to an Interim Senatorial or Assembly Committee; and, if legislation is necessary to authorize this agency to expend funds necessary to implement the functioning of such a committee by providing technical, secretarial and printing services, as well as office space for conducting their meetings. The immediate purpose of the committee would be served by their filing with this Agency and the Legislature a report and Recommendation not later than January 1, 1965.

Dated this 28th day of May, 1963.

Attest: Al E. Skelton, President

Bettie J. Swanson, Secretary

B

RESOLUTION R-63-12

A RESOLUTION ESTABLISHING AN ADVISORY COMMITTEE FOR THE PURPOSE OF STUDYING AND REPORTING, WITHIN ONE YEAR, MATTERS RELATING TO THE BOUNDARIES AND FINANCING IMPROVEMENTS OF THE AGENCY.

WHEREAS, the Board of Directors of the Antelope Valley-East Kern Water Agency wishes to create an advisory committee composed of taxpayers and other interested citizens to prepare a study relating to the future plans and operations of the agency, particularly those areas pertaining to the financing of the conveyance system and to the question of the suggested severence of the East Kern area from the agency,

The Board hereby resolves that the tax rate for the period of July 1, 1963 through June 30, 1964 the study be based on:

A. The agency's administrative costs, exclusive of expense of contract validation and expenses incidental thereto and exclusive of expenses involved in existing contracts, within the 10¢ limit.

B. The amount necessary to meet current payments to the State Water Plan.

The immediate purpose of the committee would be served by their presenting to the agency, with a copy to the Legislature, a report and recommendation not later than July 1, 1964. The advisory committee would consist of taxpayers and other persons deemed to be qualified and interested in local governmental affairs to study and report upon the functions and services of this agency.

As a result of the foregoing action it is requested of Senator Walter W. Stiern, that Senate Bill 1524 be withdrawn from legislative consideration.

Dated this 28th day of May, 1963.

Al E. Skelton, President

Attest:

Bettie J. Swanson, Secretary

Introduced by Senator Stiern

April 26, 1963

REFERRED TO COMMITTEE ON WATER RESOURCES

An act to amend Section 49 of Chapter 2146 of the Statutes of 1959, relating to the Antelope Valley-East Kern Water Agency.

The people of the State of California do enact as follows:

SECTION 1. Section 49 of Chapter 2146 of the Statutes of 1959 is amended to read:

Sec. 49. Sections 49 to 96, inclusive, of this act are designated and may be cited and referred to as the "Antelope Valley ~~East Kern~~ Water Agency Law." References to "this act" or "herein" in Sections 49 to 96, inclusive, are to the Antelope Valley ~~East Kern~~ Water Agency Law.

Notwithstanding any other provision of this act, all lands lying within the County of Kern are hereby excluded from the Antelope Valley Water Agency.

LEGISLATIVE COUNSEL'S DIGEST

S.B. 1524, as introduced, Stiern (Wat. Res.). Water agency: Kern County.

Amends Sec. 49, Ch. 2146, Stats. 1959.

Excludes all lands lying with Kern County from the Antelope Valley-East Kern Water Agency.

AMENDED IN SENATE MAY 31, 1963

SENATE BILL No. 1524

Introduced by Senator Stiern

April 26, 1963

REFERRED TO COMMITTEE ON WATER RESOURCES

An act to ~~amend Section 49 of~~ ADD SECTION 78.5 TO *Chapter 2146 of the Statutes of 1959, relating to the Antelope Valley-East Kern Water Agency.*

The people of the State of California do enact as follows:

~~SECTION 1. Section 49 of Chapter 2146 of the Statutes of 1959 is amended to read:~~

~~Sec. 49. Sections 49 to 96, inclusive, of this act are designated and may be cited and referred to as the "Antelope Valley Water Agency Law." References to "this act" or "herein" in Sections 49 to 96, inclusive, are to the Antelope Valley Water Agency Law.~~

~~Notwithstanding any other provision of this act, all lands lying within the County of Kern are hereby excluded from the Antelope Valley Water Agency.~~

SECTION 1. Section 78.5 is added to Chapter 2146 of the Statutes of 1959, to read:

Sec. 78.5. The agency is prohibited from using the provisions of Article 4 (commencing with Section 53730) of Chapter 4 of Part 1 of Division 2 of the Government Code for the 1963-64 and the 1964-65 fiscal years.

CALIFORNIA TAXPAYERS' ASSOCIATION
State Wide Nonpolitical Incorporated 1926
750 Pacific Electric Building MAdison 7-9001
Los Angeles 14, California

December 12, 1963

Mr. Henry O. Harries
Regional Tax Commissioner
Atchison, Topeka & Santa Fe Railway Company
121 East Sixth Street
Los Angeles 14, California

Dear Mr. Harries:

This is in reply to your letter dated October 23, 1963 addressed to S. J. Arnold, subject matter a request for assistance on an understanding of the budget of Antelope Valley-East Kern Water Agency. This letter has been referred to me for processing, and answer.

Your letter refers to an attachment, it being a letter from George Sturtevant to John T. Grigsby, and this letter will be referred to throughout this reply.

Attached you will find reproductions of a series of detail on the 1963-64 budget for the Agency, a summary of that material contained in the detail, and a letter of transmittal, dated November 29, 1963, addressed to Frank H. Thill of our staff, from Randle Lunt, General Manager of the Agency. The letter explains the nature of the material which Mr. Lunt submitted on his budget.

Herewith I would like to quote several paragraphs from a memo from Frank Thill to me, which are explanatory of his observations as a result of his pursuit of the desired information.

> "I should stress that the preliminary budget submitted to the Board of Directors by the General Manager was compiled on the assumption that a valuation of $165 million would be available on which to levy. The accompanying letter from General Manager Lunt explains that the reductions were made in administrative activities to accommodate a rate of 10 cents on the finally announced valuation of $148 million.
>
> "The material submitted to me clearly accounts for the components of the budget, in great detail. I should remark that the form is not one which we normally encounter, and considerable study is necessary to bring its significance to light. We are normally used to seeing budgets contain comparative expenditures in prior years for the various categories, and this is lacking. We generally see a statement of means of financing, in which carry-over balances are shown, reserves clearly indicated, and prior years' obligations estimated.

"In this case, we find prior years' obligations being paid, apparently, from the new year's appropriations. We find no allowance for delinquency calculated. The pattern is recognizable, because the organic act does not contain requirements that a budget be adopted, it only specifying that the Board of Directors inform the County Board of Supervisors of the desired tax rate, and the amount of money required from taxes. There are sections of the Government Code which require the filing of a budget by special district after adoption, but no requirement seems to apply here for the filing of a preliminary budget.

"The presence of a detailed work sheet as has been submitted indicates that it must have been available during the budget process, and had it been made available to taxpayers many of the questions now being asked would have been provided with an answer if asked at that time. I do not know, however, whether the apparent desire of Mr. Lunt to now make all information available to taxpayers was present when the budget process was going on. I was told by him that we and any others would be welcome to participate in the budget deliberations.

"The materials at hand appear to provide the answer to most of the questions which have been asked. These are expressed on page 2 of the letter of Sturtevant to Grigsby, October 14, 1963."

The budget detail which Mr. Sturtevant indicates as desirable is as follows:

I. Cash balances at July 1, 1963, including all reserves.
II. Prior Year Expenses incurred and unpaid on June 30, 1963
III. Estimated cash receipts from all sources (including loans) from July 1, 1963 to June 30, 1964.
IV. Estimated cash disbursements from July 1, 1963 to June 30, 1964, summarized as follows:
   (a) Salaries, wages and directors fees, including consultants fees.
   (b) Travel and related expense.
   (c) Salary expenses (OASDI, California Physicians' Service, Workmen's Compensation).
   (d) Legal expense.
   (e) Cash payment to State Water Plan.
   (f) Cash payments to Federal government under USGS contract.
   (g) Cash payments on contracts other than State Water Plan or USGS.
   (h) All other expenses of the Agency.

V. Estimated cash balance at June 30, 1964, including all reserves.

The carry-over balance from 1962-63 is reported to the State Controller in the amount of $35,335.03. An assumption is that the minus figure of $36,000 in reserves in the budget is an estimate relating to this item.

The first quarterly report lists accounts payable balance as of 6/30/63 in the sum of $6,477.86 for operating expenses, and payroll taxes accrued at $2,155.79. Scrutiny of the detail accounts for all the rest of the items.

Mr. Sturtevant, in addition, comments on the possibility that the sum of $100,548 for state contract costs might be accounted for, and this also is explained in the detail.

The foregoing applies to your direct request that we accommodate you in processing pertinent data on the agency budget and give you an interpretation of its contents, as outlined on page 2 of the letter from Mr. Sturtevant to Mr. Grigsby. We note that there are certain other comments in the letter, and in order to round out this communication, it may be well for us to give you our observations on them. On page 1 are four queries, which will be discussed verbatim:

Question 1. Just what reserves does the Agency have, what are they for, and where are they kept?

Observation: The reserves of the agency are essentially of the "Maintenance of Cash Basis" type, made available to cover payments for obligations due prior to the receipt of tax apportionments. They are kept by the Agency Treasurer. The amount provided in the 1963-64 budget is $45,941. During the current fiscal year, however, only approximately $36,000 is available because the difference of $9,941 is in process of being collected on the two installments of taxes. Since the district did not reserve the amount equal to obligations of $8,633.65 incurred during 1962,63, this amount must necessarily be deducted from the carry-over balance which amounted to $35,235.03 (as presented in the Treasurer's Report 9/30/63), on july 1, 1963. Thus, amounts available for maintaining the cash basis (or reserve) would read

Carry-over balance	$35,235.03
Less Prior Year's Obligation	8,633.65
	$26,601.38

The agency borrowed $61,000 on a tax anticipation note to augment this sum, the note to be repaid during the fiscal year.

Question 2. How can one tell how much of the money charged to Account Numbers--such as Account #31 for Water Basin Survey or Account #33 for AVEK (or State, according to which document you read) Water Delivery System--is for direct salary, wage and material payments and how much constitutes mandatory repayments under the constract with USGS and the State?

Observation: This question is evidently directed to material provided in a report which has not been made available to us, such report dealing with the business done during the first quarter of 1963-64. If this be so, its answer would be found only in a detailed examination of the current records of the Agency. In consideration of the fact that the Agency is spending money authorized to be spent on an annual basis, such an examination based on a quarterly report would be fruitless as depicting the Agency's program, unless the appropria-

tion was further restricted to quarterly allotments. Such an examination, conducted by us, is not understood by us to be a part of your request. A further observation on our part would be that in our opinion the Agency, in spending, is not confined to the object amounts of the budget, or to the detail submitted as substantiating such object classification. We believe that the budget as adopted by the Directors can be changed as to object classification amount at any time by the Board, subject to the limitation of the total amount available.

Question 3 & 4: We regret we do not have the reference data to which these questions refer.

Question 5: The estimated cash balance at June 30, 1964, including all reserves.

Observation: As indicated above, the estimated cash balance at June 30, 1964 would be be the amount of reserves, budgeted at $45,941. We must note the presence of a/c payable due but unpaid on June 30, 1963, in the sum of $8,633.65 which, if the General Reserve is kept intact, must be paid from the current operating appropriations. In the same context, there is no allowance for delinquency in the computation of the budget, the taxes being required equalling the total levy. Should any taxpayers fail to pay, the expected June 30, 1964 balance would be reduced by the amount of delinquency.

Further comment in Mr. Sturtevant's letter subsequent to these above questions relates to evident additions to the amounts known to be subject to payments on contracts. These are expalined in the detail material where pro-ratios of salary and wages, and maintenance costs are applied in addition to the contract amounts. This procedure, as to its propriety, could be examined by engineering and accounting experts, who together could establish the validity of the pro-rated amounts, with the goal of verifying what charges do or do not apply to the legal limit of the tax rate. This, we assume, is not a part of your request to us.

Mr. Thill took particular note of the prospect that plans now being considered by the Agency directors and its administration may well have a bearing on the 1964-65 budget. We consider it to be advisable that the taxpayers of the Agency keep themselves advised of these plans as they progress.

Cordially,

J. ROY HOLLAND
Director of Research

JRH/la

Copied: MW 3-6-64

BOOKMAN AND EDMONSTON
CONSULTING CIVIL ENGINEERS
604 SECURITY BUILDING
102 NORTH BRAND BLVD.
GLENDALE, CALIFORNIA 91203

MAX BOOKMAN
R.M. EDMONSTON

TELEPHONE
245-1888

AVEK Major Taxpayers Committee

October 23, 1963

Attention: Mr. George H. Sturtevant, Chairman

Gentlemen:

Pursuant to your letter of authorization of October 9, 1963, the undersigned, on behalf of this firm, has made a reconnaissance investigation of the plans and operations of the Antelope Valley-East Kern Water Agency.

Scope of Investigation

In accordance with my understanding with you, I have not made any detailed studies or analysis of either the engineering work of AVEK or the problems which I may have identified during the course of the investigation.

The scope of the investigation was limited to a review of material available from AVEK and the State Department of Water Resources, together with discussions held with Mr. Randle Lunt, Chief Engineer and General Manager of AVEK. In addition, I was able to draw upon material and data contained in the files of this firm and upon my own experience in the area dating back to 1951. At a meeting held on October 29 in Lancaster with Mr. Lunt, I was provided with certain material and data concerning the operations of AVEK. On December 23, 1963, I received a report prepared by Mr. Lunt entitled "Reconaissance Report of the Antelope Valley-East Kern Water Agency - Distribution of Imported Water" dated December 1963. This report was given only a cursory review because of time limitations. However, in most respects it comprises a compilation and discussion of material previously furnished to me.

Two meetings as well as several telephone conversations were held with Mr. Sturtevant to discuss the scope of investigation. It is my understanding that you desired a preliminary evaluation of AVEK's engineering program with particular emphasis on the necessity for various phases thereof and also an evaluation of the necessity for expenditures by AVEK to carry out adopted engineering programs.

Engineering Program of AVEK

On the basis of analysis of material received from Mr. Lunt and my discussions with him, it is apparent that the engineering program under way by AVEK is broad in scope, comprised of a number of various activities, and intended to implement many of the powers granted to the agency by law. Among the programs which have been undertaken by AVEK are the following:

1. Studies of numerous alternative water distribution systems.
2. Preparation of forecasts of population, irrigated agricultural development, and water use.
3. Studies of reclamation of water from sewage.
4. Flood control investigations.
5. Study of multipurpose reservoir construction including recreation potentials.
6. Studies of annexation possibilities, and exclusion of certain areas from the agency.
7. Ground water investigations.
8. Investigation of sources of distribution system financing, and methods of repayment.
9. Analysis of possible improvement districts within the agency.
10. Studies of critical water problems in the agency.
11. Preparation of data for submission to the State Department of Water Resources pursuant to the agency's water service contract with the State of California.

12. Preparation of monthly progress reports.

13. Preparation of formal and informal reports on many of the foregoing studies and investigations.

I will not attempt herein to review each of the foregoing in any detail. However, certain general activities which it appears to the undersigned have particular significance at this time are discussed.

The State Water Service Contract

Much of Mr. Lunt's work has been directed to the preparation of plans for water distribution within the agency. This information, among other things, was intended to develop conclusions as to the number, location and capacity of turnouts from the State Aqueduct, which data were required to be furnished to the State under provisions of the water service contract. Mr. Lunt reported that numerous systems had been studied and as a result he concluded that three turnouts should be constructed as follows: (1) at the south portal of the Tehachapi Tunnels; (2) at the head of the West Branch Aqueduct (the location of which has not yet been definitely established by the State); and (3) the West Branch Aqueduct near the Highway 138 crossing.

By Resolution No. R-63-13, the Board of Directors adopted Mr. Lunt's recommendation and the State was so advised. It is to be noted that this resolution also requested the State to bill the agency in 1963-64 for one-fourth of the estimated cost of the delivery structures.

As a result of Mr. Lunt's studies, he concluded that a distribution system embracing concept of a "Central Desert Aqueduct" be adopted. This aqueduct would head in the vicinity of the proposed turnout at the south portal of the Tehachapi Tunnels, and extend easterly through the agency. The system would be constructed of closed-pressure pipe and would serve not only AVEK but also the Palmdale Irrigation District, the Little Rock Creek Irrigation District, and the Mojave Water Agency. Sharing of the cost thereof would be based, according to Mr. Lunt's studies, on the proportionate-use-of-facilities method.

Mr. Lunt stated that no discussions had been held nor contacts made with other entities that would presumably participate in the aqueduct.

It is to be noted that the location of a major turnout at the south portal of the Tehachapi Tunnels, in itself, postulates the construction of the distribution system embracing a "Central Desert Aqueduct." If capacity in the reach of the State's proposed East Branch Aqueduct beyond the south portal of the tunnels is not constructed for the benefit of AVEK, this would be the only way water service could be provided to the agency.

Ground Water Investigation

The USGS Ground Water Branch under contract with AVEK is making a comprehensive study of the underground geology and hydrology in AVEK. The need for and desirability of such a study in the area has been discussed over a period of many years since the time of first announcement of the Feather River Project. The results of this study should be most useful in the future in location of distribution system facilities and in assessing benefits of project operation.

Projections of Population and Water Use

Mr. Lunt, by statistical methods, has made a projection of location and magnitude of population and urban water use in AVEK. He has also projected irrigated acreage and use of water thereby. In connection with this work, it appears that standard and accepted techniques have been employed. Projections have also been made of the magnitude of the supplemental water requirement or physical overdraft of water (water requirement minus safe yield).

Estimates of the rate at which supplemental water from the State project will be used in AVEK are the same as those appearing in the State water service contract and are as follows:

Annual Entitlements
Antelope Valley-East Kern Water Agency

Year	Total Annual Amount in Acre-Feet
1	20,000
2	25,000
3	30,000
4	35,000
5	40,000
6	45,000
7	50,000
8	55,000
9	60,000
10	65,000
11	70,500
12	76,000
13	81,500
14	87,000
15	92,500
16	98,000
17	103,500
18	109,000
19	114,500
20	120,000
and each succeeding year thereafter, for the term of this contract as a Maximum Annual Entitlement:	120,000 Acre-feet

It is to be noted that the foregoing quantities of water must be paid for whether they are actually used or not. These values are taken by Mr. Lunt in his studies to be the economic demand for State water in AVEK. This subject will be discussed in more detail in a subsequent section.

Flood Control

Mr. Lunt reported that he had undertaken a study of flood control in the Leona Valley, flood waters from which he states pose a hazard to the Lancaster area.

Financial Studies

Studies have been made of alternative methods of financing distribution costs, including bond issues, pay-as-you-go, and loans under the federal programs. Financial analysis have been made of the repayment of obligations which would be assumed under the State contract and for distribution system construction. Several assumed political subdivisions (improvement districts) were also studied with respect to financial implications of bonding, ect. In each of these analysis assumptions were made as to revenues to be received from water sales and the residual amounts of money which would be required to be raised by taxation. It is to be noted that the water sales schedules assumed in the analysis are identical to those set forth in the State contract. From analysis of information provided by Mr. Lunt, it appears that he has assumed that water would be sold at the variable cost to the agency under the State contract, or about $25 to $35 per acre-foot. Remaining costs would be financed through taxation.

Budget

AVEK's budget for 1963-64 which amounts to $303,178 was examined together with supporting detail supplied by Mr. Lunt. Explanation of principal budget items is presented herein.

In general, the salaries of engineering and stenographic personnel shown in the details supporting the budget supplied by Mr. Lunt are consistent with salaries paid to personnel in comparable situations elsewhere. The basic budget breaks down as follows:

Procedural Expenses	$ 20,555
Administrative Expenses	38,163
Engineering Projects Expenses	227,519
Capital Outlay Expense	7,000
Reserve Requirements	9,941
	$303,178

Procedural and Administrative Expenses

The first two items, procedural and administrative expenses, total about $59,000 and include expenses of the Board of Directors, staff work preparing for meetings of the board, public information, and preparation of the monthly progress report. An item of $13,625 is included for general services which is understood to be rental of the building and purchase of most of the material and supplies for the Agency's operation.

Engineering Projects Expenses

Engineering projects expenses include engineering work performed by the staff of AVEK on studies mentioned previously, payments to the State under the contract, payments to the federal government for the USGS Survey, and other related expenses. These are further broken down in the following tabulation:

	Salary & Wages	Maint. & Operation	Structural Improvements State	Structural Improvements AVEK	Capital Outlay	Total Total
General Engineering Services	$ 2,026	$ 273	$	$		$ 2,299
Water Basin Survey	8,646	27,369				36,015
State Contract Costs Including Validations	6,423	2,020	92,105 *			100,548
State Water Delivery System	20,735	5,134	38,000*			63,869
Water Conservation Study and Core Drilling	6,798	1,669		10,000		18,467
Annexation Proposals	2,842	609				3,451
Improvement District Proposal	2,440	430				2,870
Total	$49,910	$37,504	$130,105*	$10,000		$227,519

* Includes Contract Obligations

The headings in the foregoing table are believed to be selfexplanatory with the exception of "Maintenance and Operation." This item includes materials and supplies, rental costs, "fringe benefits" for employees, as vacations, ect., and payroll taxes.

The item of water basin survey of $36,015 is broken into two items, as shown. Salary and wages amounting to $8,646 represent staff time of AVEK on the project, and maintenance and operation amounting to $27,369 represents payments to the USGS.

Under "State Contract Costs," the major item is the $92,105 which includes the required payment to the State of $82,492 estimated contract validation costs, and a contingency. Under "State Water Delivery System," salary and wages amount to $20,735 for staff time on related studies; $5,134 represents material, supplies and fringe benefits; and $38,000 represents proposed advance payments to the State for one-fourth of the cost of the three turnout structures previously described.

The "Water Conservation Study" also includes the cost of flood control study in Leona Valley, according to Mr. Lunt. It is to be noted that the $10,000 item under structural improvements is the cost of drilling a dam site in Leona Valley.

Capital Outlay Expenses

An item of $7,000 is presented under "Capital Outlay Expenses" which Mr. Lunt indicates represents purchase of equipment and furniture. He states that it is doubtful all of this will be expended in the current fiscal year.

Reserve Requirements

Under this item, the net appropriation amounts to $9,941 since Mr. Lunt explained $36,000 is now available which would provide a total reserve of $45,941.

Comments on Engineering Program

As stated, it was understood from my conversations with Mr. Sturtevant that comments relative to the necessity of various phases of the engineering program and costs thereof were desired.

On the outset, it should be recognized engineering work and certain financial analysis are required of the Agency by provisions of its water service contract with the State of California. Certain of the work conducted by the Agency in the past has been directed toward satisfying these provisions of the contract. In addition, there has been, as you are aware, considerable controversy over the authorized East Branch Aqueduct of the State water facilities. This controversy stems from a request by the Metropolitan Water District of Southern California to defer construction of this facility until 1985. The District has estimated considerable savings if this were done, taking into account the cost of construction of interim facilities to supply water to the agencies including AVEK which would be served by the East Branch Aqueduct.

From a review of the various data and reports obtained from AVEK, it is apparent that AVEK has concluded as follows:

1. The proper location and capacity of turnouts from the State facility (subject only to a revision in the location of the West Branch Aqueduct by the State).

2. The future rate of use of State water in the Agency.

Having concluded the foregoing, the Agency is now proceeding with details of distribution system size and location and sources and methods of financing these facilities. In addition, other programs are under study, as flood control, waste water reclamation, satisfaction of immediate critical water problems, ect.

As a result of this reconnaissance investigation, I am unable to verify independently the validity of the foregoing conclusions with respect to the State water facilities. This statement is made on the basis that insufficient information is available to arrive at these conclusions.

Being of this opinion, I must, therefore, conclude that with respect to the State water program and a delivery system therefore, any serious consideration of the location and capacity of these facilities together with preparation of preliminary design therefore or consideration of sources and methods of financing such facilities is premature.

In explanation of the foregoing statement, the following discussion is submitted.

AVEK was founded for the primary purpose of providing an agency to contract with the State of California for water service, in recognition of a physical overdraft on ground water supplies in the Agency area. This overdraft has existed for many years and has resulted in a continued lowering of the ground water table. As a result, investors were discouraged by the lack of availability of a secure water supply and the growth potential of the area was no doubt inhibited.

The contract entered into with the State of California, as stated, will provide up to 120,000 acre-feet per year. This amount of water presumably would eliminate the current overdraft and increases therein occasioned by establishment of additional water-using development in the area. The existence of the contract itself should provide insurance to investors that the area will have an adequate water supply.

However, prior to proceeding with distribution system design and related financial activity, the Agency itself should have the assurance that the amounts of water which have been contracted for with the State over time can be sold to water users. What is suggested is a determination of the economic demand for water in the area. To my knowledge, the only work that has been done in this regard was that performed in connection with the development of Bulletin No. 78 of the State Department of Water Resources, which was prepared under my direction. Many of the assumptions and premises of that bulletin, which was completed in the absence of legislative or administrative policy with respect to water contracts, are no longer valid. In other words, the terms and conditions of the State water service contract with respect to the manner and amounts of payment, whichcontract was developed subsequent to the preparation of Bulletin No. 78, are in conflict with the assumptions and premises of Bulletin No. 78. The result of this is that the economic demand for water from the State water facilities is probably different from that presented in Bulletin No. 78.

In reviewing data supplied by Mr. Lunt, including the State water service contract, it does not appear that any such study was performed by the Agency prior to the negotiation of the contract with the State.

The term economic demand for water is defined as the quantity of water that can be sold at an established price taking into account the price, availability and characteristics of alternative sources of water supply. The fact that an overdraft on ground water supply may exist does not in itself indicate that an economic demand or market for surface water, i.e. State water, exists. The foregoing in no way is intended to depreciate the seriousness of a overdraft particularly from the long-term view point or the

desirability of having a contract with the State to provide the insurance mentioned previously. The problem, however, is essentially a physical one that may be of little direct economic significance to individual water users. That is, users will not buy surface water expressly to offset overdraft nor will they curtail the use of ground water solely because the aquifer from which they pump is overdrawn. They will buy surface water only if it is economically advantageous to do so or if they are physically or legally restricted from using ground water.

To bring into focus the foregoing, the cost of the State water supply should be examined. This cost may generally be divided into two components: (1) fixed costs, and (2) variable costs.

Fixed costs are those which are incurred regardless of whether any water is used and involve payment to the State for the cost of construction of the aqueduct and minimum operation and maintenance expenses. It is payment of fixed costs that is contained in the budget of AVEK for the current year. In addition, since water must be paid for under the schedule of annual entitlements set forth in the Agency contract with the State whether or not water is used, payment of Delta Water Charge amounting to nearly $7.00 per acre-foot by 1980 becomes a fixed charge.

Variable costs are those associated with the delivery of water per se, and are paid only as water is actually delivered to the Agency. Various estimates of these charges have been made by the State, and they are continually under revision. It is presently estimated that the variable costs would amount to from $25 to $35 per acre-foot, and these values have been used by Mr. Lunt in his analysis. It is to be noted that all fixed costs excluding the Delta Water Charge have been assumed in Mr. Lunt's studies to be paid by ad valorem taxes.

In addition to the foregoing, costs will be incurred by the Agency in transporting water from the State aqueduct to places of use and possibly treating this water for domestic consumption. These latter costs, both fixed and variable, will depend on the nature of the distribution system.

Although I have given no study specifically to the cost of producing ground water in the Antelope Valley, from my own experience I would believe that this cost generally throughout the valley is substantially less than $25 to $35 per acre-foot. I further question that ground water production costs will approach this figure for many years to come.

Therefore, it must be concluded that areas underlain by ground water would continue to use this supply in lieu of State water unless there is an economic inducement to do so, or unless the quality of local water is unsatisfactory for its intended purpose or unless the entity were legally restricted from pumping. None of these situations would appear to obtain at the present. In order to induce the sale of State water in the future, it would appear that not only fixed costs but also a substantial portion of the variable costs of the State water supply also would have to be paid for by proceeds from an ad valorem tax.

In the opinion of the undersigned, the first step in the development of any water project is the determination of where water will be sold, at what amounts, and at what points in time - in other words, to predict with reasonable certainty what the economic demand for the water is and where it is. Such a determination would include contacting landowners and water purveyors in the Agency to determine under what conditions and at what price they would buy State water. Mr. Lunt advises that no such contacts have been made. In advance of this knowledge, any firm conclusions relative to the location, size, extent and timing of construction of a required distribution system cannot be reached.

Further, the location and capacity of turnouts from the State aqueduct cannot be determined correctly without a finite determination of economic demand for water. In addition to the obligation of AVEK under its contract with the State to advise of location and capacity of turnouts, there is an obligation along with other potential East Branch contractors to work out the capacity of the East Branch itself. All contractors with the exception of AVEK and MWD have announced they desire the East Branch constructed on schedule. AVEK, on the basis of its studies, has indicated in effect that it does not need the East Branch since it would take delivery of its water from the West Branch and at the south portal of the Tehachapi Tunnels at which point the "Central Desert Aqueduct" would head. On the basis of the engineering work completed, I would be unable to arrive at a similar conclusion. This is not to say that I agree or disagree with the conclusions of AVEK, but rather I could not come to any conclusion on the basis of information at hand.

Depending on the outcome of the determination of economic demand for State water, engineering activity on the State water program could be increased or materially decreased. For example, if it were found that there would be little or no immediate market for this water in the early years of the project, i. e. 1972 et seq., then with respect to activities on the State project the Agency could function primarily as a paper organization and a tax collecting entity to make payments to the State. This level of activity was carried on for a number of years in the past by member agencies of The Metropolitan Water District of Southern California, which were not actually utilizing water.

The necessity of other engineering programs under way by AVEK appears to be a question of fact and the desire therefor by the constituency and the Board of Directors. For example, the flood control study in Leona Valley is made necessary by the reported occurrences of floods from this area which would endanger life and property in Lancaster. If this be a fact, then presumably the study is necessary. The only questions are whether it should be performed by AVEK or by certain federal agencies which have been created for this purpose, and whether it should be financed by taxes collected over the entire Agency.

Studies of waste water reclamation, recreation, etc., are activities which may be desirable but might be deferred if the timetable of distribution system construction is deferred.

The study being performed by the USGS on ground water conditions in the area in my opinion is a desirable one. As stated, the results thereof should prove helpful to the Agency in future operations and in fact could assist in the Agency's determination of any existing entities in the area that might find it economically attractive to use imported water.

Comments on Budget

In commenting on the budget of AVEK, I would state that the magnitude of the budget, other than for payment of costs under the State contract, largely depends on the desires of the constituency of the Agency and policies of its board with respect to programs now under way or contemplated. Further, as indicated previously, the level of activity and attendant costs which are necessary to the State program would depend on the timing of construction of distribution system facilities. This timing of construction of these facilities can be determined only by a study of economic demand for State water.

Another area where cost savings could be effected would be in the preparation of progress reports and other formal and informal reports and in the relatively large scale program of dissemination of public information. This program, although having some desirable aspects, absorbs a great deal of staff time and cost and can become a self-perpetuating and increasing activity. It would appear that until a definitive program is adopted by AVEK, these activities could be reduced without affecting the over-all primary objective of the Agency. Again, this is a matter for decision by the constituency and board of the Agency.

In the current year's budget, the item of $38,000 for advance payment to the State for turnout facilities could, and in my opinion, should be deferred in light of comments presented previously.

Summary of Conclusions

As a result of this reconnaissance investigation, the following general conclusions are submitted.

1. A study of the economic demand for State water in the Agency should be initiated to determine the amounts of State water which actually will be used over time by entities in the Agency, the price and terms and conditions under which these entities will use State water, and the location of the entities.

2. Until the results of the study set forth in (1) are known, firm decisions cannot be made on the following:

   a. The location and capacity of the distribution system and of turnouts from the State aqueducts;

   b. Methods of financing a distribution system;

   c. Whether or not improvement districts should be established in the Agency to finance and construct portions of the distribution system.

I trust this reconnaissance report will be of value to your committee. If you have any questions on the report or if I can be of further assistance to you, please advise me.

Very truly yours,

R. M. Edmonston

R. M. EDMONSTON

ANTELOPE VALLEY - EAST KERN

MAJOR TAXPAYERS COMMITTEE

May 24, 1963

To: Daniel M. Cooper

From: George H. Sturtevant

.....ORGANIZATIONS REPRESENTED ON THIS COMMITTEE ARE:

American Potash & Chemical Corporation
Atchison, Topeka & Santa Fe Railway Company
California Electric Power Company
California City Development Company
California Interstate Telephone Company
Great Lakes Carbon Corporation
Pacific Gas & Electric Company
Pacific Telephone & Telegraph Company
Southern California Edison Company
Southern California Gas Company
Southern Pacific Company
Texas Aluminum Company
United Carbon Company
United States Borax & Chemical Corporation

AVEK MAJOR TAXPAYERS COMMITTEE

AMERICAN POTASH & CHEMICAL CORPORATION
3000 West Sixth Street
Los Angeles, California 90054
(213) DU 2-8231. Nights: (213) DU 2-8230
George H. Sturtevant, Manager, Employee & Public Services
Home Phone: (213) NO 3-7563

ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY
121 East Sixth Street
Los Angeles, California 90014
(213) MA 8-0111, Ext. 383
R. O. (Bob) Bonus, Tax Agent
Home Phone: (213) AT 2-6441
Henry O. Harries, Regional Tax Commissioner
Home Phone: (213) WE 6-4007

CALIFORNIA CITY COMMUNITY SERVICES DISTRICT (INFORMATION COPY)
8190 Randsburg-Mojave Road
California City, California 93501
(805) DR 3-2252
Mrs. Dorothy A. Jackson, Finance Officer
Home Phone: (805) DR 3-2712

CALIFORNIA CITY DEVELOPMENT COMPANY
5512 Hollywood Boulevard
Hollywood, California 90028
(213) HO 2-6921
N. K. (Nat) Mendelsohn, President
Home Phone: (213) HO 9-2672

CALIFORNIA ELECTRIC POWER COMPANY
P.O. Box 1029
(2885 Foothill)
San Bernardino, California 92402
(714) TR 5-5100, Ext. 334. From Los Angeles Dial: MA 5-1051
F. E. Lucking, Vice President & Commercial Manager
Fred H. Swedenhjelm, Jr., Commerical Agent
Home Phone: (714) TR 5-3518

CALIFORNIA INTERSTATE TELEPHONE COMPANY
16461 Mojave Drive
Victorville, California 92392
(714) CH 5-9311
Willard Wade, President
Home Phone: (714) CH 5-9111

GREAT LAKES CARBON CORPORATION
Highway 6
Rosamond, California 93560
(805) BL 6-2411
Edward D. Burton, Manager
Home Phone: (805) WH 2-5900

MOJAVE CHAMBER OF COMMERCE (INFORMATION COPY)
15906 Sierra Highway
Mojave, California 93501
(805) VA 4-2481
Robert A. (Bob) Byers
Home Phone: (805) VA 4-2038

MOJAVE LUMBER COMPANY
P. O. Box 845
(2456 Oak Creek Road)
Mojave, California 93501
(805) VA 4-4172
Blake V. Blakey
Home Phone: (805) VA 4-2765

MOJAVE PUBLIC UTILITY DISTRICT (INFORMATION COPY)
15844 K
Mojave, California 93501
(805) VA 4-4161
Attention: D. C. (Dave) Sparling
Home Phone: (805) VA 4-2811

MOJAVE REALTY COMPANY (INFORMATION COPY)
16000 Sierra Highway
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(805) VA 4-4055
Attention: Dick Poole
Home Phone: (805) WH 2-5734

MONOLITH PORTLAND CEMENT COMPANY
643 South Olive Street
Los Angeles, California 90014
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H. Dale Amacker, Assistant Manager, Jameson Ranch
Home Phone: (213) WE 1-7800

PACIFIC GAS & ELECTRIC COMPANY
1918 H Street
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William G. (Bill) Rea, Jr.
Home Phone: (805) FA 2-6686

PACIFIC TELEPHONE & TELEGRAPH COMPANY

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Rod L. Middleworth, Manager, (805) 327-6477
Home Phone: (805) 366-3583

PLATT RANCH

1024 West Bay
Newport Beach, California 92661
(714) OR 3-2669
Attention: Edwin L Gardner

SOUTHERN CALIFORNIA EDISON COMPANY

P. O. Box 1232
(44933 North Fern Avenue)
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(805) WH 2-9531
C. D. ("C. D.") Smith, District Manager
Home Phone: (805) WH 2-8620

601 West Fifth Street
Los Angeles, California 90017
(213) MA 4-7111
J. D. (Pat) Patterson
Area Development Consultant
Home Phone: (213) TH 8-7463

SOUTHERN CALIFORNIA GAS COMPANY

P. O. Box 951
(126 North Maryland)
Glendale, California 91209
(213) CI 6-4961. From L. A. CH 5-3171
C. C. (Wes) Westmoreland, Manager,
Northern Division
Home Phone: (213) CI 4-8360

1510 North Chester Avenue
Bakersfield, California 93308
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A. B. (Tex) Newby, District Manager
Home Phone: (805) FA 5-4101

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Home Phone: (805) WH 2-7131

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610 South Main Street
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Frank Converse, Assistant Tax Commissioner
Home Phone: (213) SY 9-3121

TEJON RANCH COMPANY
P. O. Box 1560
Bakersfield, California 93302
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John T. Grigsby, Manager, Engineering Division
Home Phone: (805) 248-6282 (Lebec)

TEXAS ALUMINUM COMPANY
Mojave, California 93501
(805) VA 4-4021
R. W. (Sam) Saunders, Manager
Home Phone: (805) VA 4-2707

UNITED CARBON COMPANY
P. O. Box 997
Mojave, California 93501
(805) VA 4-4031
Marcus J. Graham, Manager
Home Phone: (805) WH 2-1783

UNITED STATES BORAX & CHEMICAL CORPORATION
3075 Wilshire Boulevard
Los Angeles, California 90005
(213) 381-5311
Nicholas J. Kockler, PR Director
Home Phone: (213) 346-7492
Ralph S. Brown, Geologist & Hydrologist
Home Phone: (213) HA 1-2181

Boron, California 93516
(805) SM 2-5191
Nights: (805) SM 2-6294
W. J. (Walt) Diffley, Plant Manager
Home Phone: (805) SM 2-6726

101063:av

ORDINANCE O-64-2

AN ORDINANCE AMENDING ORDINANCE NO. 1 OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY BY ADDING ARTICLE V, SECTIONS 1 AND 2 THEREOF, ESTABLISHING POLICY ON BUDGET PROCEDURES AND POLICY ON CREATION OF IMPROVEMENT DISTRICTS TO ASSUME ALL EXPENSES IN CONNECTION WITH THEIR FORMATION AND OPERATION AND TO REIMBURSE AGENCY FOR ANY EXPENSES INCURRED PRIOR TO BEING PLACED ON TAX ROLL

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY that Ordinance No. 1 of the Antelope Valley-East Kern Water Agency be amended by adding Article V, Sections 1 and 2, as follows:

ARTICLE V, BUDGET, EXPENDITURES AND REVENUES

SECTION 1. A preliminary budget for each ensuing fiscal year shall be submitted to the Board before May 1. The fiscal year shall begin on July 1 and end on the next following June 30. The Board may hold public hearings on the preliminary budget and make modifications of any kind thereof. The budget, insofar as practicable, shall conform to the accounting procedures established by the State of California pursuant to Section 53891 of the Government Code. The Board shall conclude its public hearings on the preliminary budget before June 30, and before August 15 the Board shall fix the tax rate for the Agency, and for all Improvement Districts thereof which were organized in time to levy taxes in that fiscal year. In the event any proposed improvement district is organized before adoption of the budget or after the time permitted the improvement district being placed upon the tax rolls of the applicable county, the Agency budget may include provisions for the maintenance and operation of the improvement district including organizational expenses, but the improvement district shall reimburse the agency for such expenses plus interest at 4% from the first receipt of revenues in the ensuing fiscal year. The agency budget shall be separated into parts, namely (a) general administration, (b) contractural obligations, (c) improvement districts.

SECTION 2. It is found and declared to be a policy of the Board to allocate costs of any project to the benefitted areas of the agency in proportion to the benefits estimated to be derived therefrom. To accomplish this purpose, formation of improvement districts pursuant to Sections 69, 70 and 71, of the Agency Law and Improvement District Act of 1911, will be encouraged.

ORDINANCE O-64-2 (continued)

The Board may include provisions in the Agency budget to perform any and all work incidental to the creation of such improvement districts: The improvement district when organized shall reimburse the Agency out of earliest revenues for actual costs of such expenditures, plus 4% interest.

DATED THIS 25th day of February, 1964.

Alfred E. Skelton, President

Bettie J. Swanson, Secretary-Treasurer

ATTEST:

Bettie J. Swanson, Secretary-Treasurer

(SEAL)

May 18, 1964

Mr. Al E. Skelton, President
Antelope Valley-East Kern Water Agency

Subject: Water Delivery Schedules

Dear Mr. Skelton:

The Contract between the Department of Water Resources and the agency requires that before September 30, 1964, the agency must exercise its option provisions to contract for additional water.

On February 27, 1964, the Board provided the State advance notice of its intention to request an additional quantity of water. At that time the State indicated to all contractors the amount of additional water available based on the assumption that the total amount of water available would be evenly offered to all contractors in proportion to their amount of water in their contract. Since then the State has found that several Water Agencies have indicated that they do not want to contract for additional quantities of water, thus, possibly making a larger quantity of water available to other agencies including AVEK.

The Board indicated to Mr. Warne that this agency would be willing to contract to up to 150,000 acre feet if that amount of water were available and suggested a delivery schedule beginning in 1972.

The possibility that the Advisory Committee may recommend and the Board may initiate action to exclude territory from the agency or that the Legislature may recommend exclusion of certain territory in Kern County from the agency, will require that this agency revise its estimates of water requirements for the agency in the event such exclusion takes place.

This letter is to inform you that I will be prepared soon to make recommendations to the Board of Directors a schedule of water deliveries for the agency pursuant to the option requirements of the contract under any of the following conditions.

1. That no lands will be withdrawn in Kern County from the Agency.

2. That two Improvement Districts be created; one in Kern County and one in Los Angeles County for the purpose of establishing water delivery schedules for each segment; for the purpose of apportioning water entitlements for the two areas; and, for the purpose of computing the charges for each Improvement District as their proportion of the State annual bill for capital costs and water deliveries.

3. That all lands within Kern County be withdrawn from the Agency.

4. And, on the assumption that the Fremont Basin be withdrawn from the agency.

Yours very truly,

Randle G. Lunt
Chief Engineer & General Manager

RGL:bj

CC/ Whitford B. Carter Chairman
AVEK Advisory Committee

MOJAVE PUBLIC UTILITY DISTRICT
PHONE VAlley 4-4161 MOJAVE, CALIFORNIA 93501 15844 "K" STREET

June 19, 1964

Mr. Walter J. Diffley
United States Borax and Chemical Corporation
Boron, California

Dear Mr. Diffley:

Re: The United States Borax and Chemical Corporation 4-point Plan for the settlement of the Antelope Valley-East Kern Water Agency Dispute

This acknowledges your presentation of the U. S. Borax 4-point plan for the settlement of the Antelope Valley-East Kern Water Agency dispute which was presented by you and Mr. Nicholas Kockler to three of the five Directors of the Mojave Public Utility District at its office in Mojave, California, on Friday, June 12, 1964.

At that time it was stated by you that the U. S. Borax Plan was the result of the whole of the corporate effort of the United States Borax and Chemical Corporation and that the plan had been received in several other separate presentations by the interested people of a number of firms and public agencies concerned with the AVEK Controversy. Favorable reception of the Plan was indicated as having been given by the Tejon Ranch Company, United Carbon Company, Southern California Edison Company, and Southern Pacific Company. Presentations had also been made to the California City Community Services District and the California City Development Company. The acceptance or rejection of the Plan by these two California City organizations were not indicated to us by you.

Based on the information presented to us, the Directors of the Mojave Public Utility District find the U. S. Borax Plan unacceptable. It appears in the presentation of the Plan that your firm has wholly ignored the existence of the East Kern Constituency Group and the Major Taxpayers Committee, as major elements of the controversy. We wonder at your purpose in seeking to present this Plan to the individual components of these two groups rather than to the groups as a whole. We wonder why you have not requested a meeting of both of these groups to hear your Plan and to discuss it freely and openly. If it is considered a valid proposal by your firm, why do you seek its acceptance by the separate parts of the East Kern constituency rather than by the constituency as a whole? We also wonder at the intent of the U. S. Borax and Chemical Corporation in seeking to present its own solution to the AVEK problem. To us the U. S. Borax Plan is so impossible of achievement, so naive, and so unforthrightly presented as to suggest a deeper motive than just the amicable solution of the AVEK Controversy.

The method and manner by which you and Mr. Kockler appear to be requesting the acceptance of the U. S. Borax Plan prior to the Report of the AVEK Study Committee suggest that you intend to foreclose the East Kern Constituency and that you are seeking to establish the U. S. Borax and

Chemical Corporation as a third force in the controversy. The U. S. Borax Plan and the manner of its presentation could be construed as an attempt by your firm to undermine the East Kern negotiating position in the AVEK dispute.

We are shocked at your political naivete in suggesting to us that the Board of Directors of AVEK would voluntarily emasculate itself by resolving that its primary purpose is to be the conveyance of supplemental water, and that all unrelated, but necessary, auxilliary services will be provided by arrangements with applicable State or Federal Agencies. From the moment of its conception the AVEK Agency has time and again stated and demonstrated its avowed intent to not only transmit supplemental water, but to concern itself also with water reclamation, ground water control, flood control, water basin management and recreation to the fullest of its ability. It would be unrealistic for anyone to assume that the Directors of AVEK would resolve to limit themselves in these areas in which the Agency Act gives them full power to operate.

Your belief that the Directors of AVEK would similary resolve to restrict the ad valorem tax is a further demonstration to us of your political naivete. The AVEK Agency has consistently refused to adhere to the taxing formula contained in Section 79 of the Agency Act.

Such restrictions as you propose the Agency establish could be rescinded at any time by the Directors of the Agency. At best they would afford only temporary relief. Only severance of the Agency at the Kern-Los Angeles County Line will give the permanent relief that is so much to be desired.

Further, the U. S. Borax Plan does not recognize severance of the Agency at the only logical boundary possible - the Kern-Los Angeles County Line - a possible solution. We have been continually and unfavorably impressed by the refusal of the U. S. Borax and Chemical Corporation to align itself with the political organization of which it is a part, namely Kern County. Nor do we concur with the arguments presented by you for severance on the basis of what is purported to be a "water basin" boundary. If you will excuse the expression, we believe your arguments do not hold water!

And we dislike very much what has been expressed by one as your presentation by a method of "divide and conquer". A more forthright and less devious method of presentation would have been more acceptable to us. Your method of presentation leads us to believe that even you may have doubts as to the soundness and feasibility of your own U. S. Borax Plan.

The Mojave Public Utility District's study of the problem suggests that: (1) severance of the Agency at the County Line, (2) the taking of its share of the water allocated, (3) the taking advantage of our rights as part of the Kern Water Agency through an area of benefit established in East Kern for the sole purpose of importing supplemental water, would be a more equitable and practical solution to the problem.

Copies of this letter are being mailed to the several members of the East Kern Constituency and the Major Taxpayers Group.

Yours truly,
Mojave Public Utility District

D. C. Sparling, President

U.S.BORAX

PRODUCTION DEPARTMENT

July 2, 1964

Mr. Whitford B. Carter
Chairman, Advisory Committee
Antelope Valley-East Kern Water Agency
554 West Lancaster Boulevard
Lancaster, California

Dear Mr. Carter:

During the past year in which the Advisory Committee has been conducting its study of the questions relating to the AVEK Water Agency controversy, our company has been carefully examining the matter with a view toward reaching conclusions which could be presented to your Committee for consideration in formulating your recommendations. We have recently completed our examination and should like to submit our conclusions for the record.

On the question of severance, we are of the opinion that the interests of all concerned can best be served by prevention of severance along the Los Angeles-Kern County line for reason that political boundaries bear no relation to the ground water basin boundaries of the area.

According to USGS studies*, Boron, Edwards and neighboring communities are situated in sub-basins of the Antelope Valley ground water area and they tap the same ground water supply as the Los Angeles County sectors of AVEK. The East Kern communities most strongly advocating politically oriented severance are located in the Fremont Valley Basin which is separated from the Antelope Valley Basin by impervious rock formations and draws most of its underground water from run-off from the Tehachapi Mountains.

Politically, the county line dictates a closer relationship between the communities in East Kern, one to the other, than between the East Kern County and the Los Angeles County sectors of the Agency. However, in terms of

*USGS Hydrologic Investigations, Atlas HA-31, 1962, by Fred Kunkel, attached.

communality of ground water supply, the Boron and adjacent areas are more closely related to the Los Angeles County portion of the Agency than to the Mojave area. And, in view of the fact that each of the two ground water basins (Antelope Valley and Fremont Valley) exhibits individual physical characteristics such as the source and amount of inflow or outflow, the quantity of water in storage, and other related geologic and hydrologic considerations, each basin, in our opinion, should be managed as a separate entity under one agency, or, if agency boundaries are to be changed, they should follow ground water basin - not political - lines. By the same reasoning, since differences in pumping demands will create differing degrees of urgency in obtaining supplemental water, the problems involving the total water picture in both counties will continually be manifested in terms of water basins and should be dealt with on that basis.

As to revising the Agency Act, we suggest that legislative changes be sought only if the parties are unable to resolve current difficulties on the local level or if agreements reached through discussion on the local level require modifications to the Act.

Since the main force of the current controversy is apparently attributable to the contention that the East Kern County sector and the Los Angeles County sector of AVEK are neither politically nor economically homogeneous, we propose the following principles as an approach which might form the basis for discussions leading to a solution mutually satisfactory to all concerned:

1. By Board resolution declare the primary purpose of the agency to be the conveyance of supplemental water.

It appears both unwise and unrealistic to attempt to revise the water agency act to limit the powers of AVEK management. A resolution should be sufficient evidence of Board policy to clarify this issue.

2. By Board resolution restrict ad valorem taxation insofar as practicable to the level necessary to cover only administrative costs of agency operation.

This restriction should answer the objection that ad valorem taxes were being used for purposes other than administration of the agency.

3. Impose water use taxes to the full extent feasible to retire bonded indebtedness incurred for construction of the required distribution system.

Use taxes provide equitable taxation of all land, since only those who use the water pay for the supplemental facilities. Large water users thus

would pay their fair share of distribution system costs.

4. Finance water supply to the communities of the agency on an improvement district basis, as and when needed.

Under the improvement district plan, each using community would pay its own cost of delivering water from the main aqueduct system.

We are mailing copies of this letter to representatives of business organizations and public agencies who have indicated an interest in the matter, with the suggestion that if there are any comments they care to make, they direct them to the Committee within the next few days.

Very truly yours,

W. J. Diffley
Resident Manager

mb
Enc.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. Box 392
Lancaster, California 93534

July 7, 1964

W. B. Carter
Chairman, Advisory
Committee of the AVEK

Dear Whit:

Attached are the needs for flood control within the Antelope Valley-East Kern Water Agency as determined by the Conservation Needs Committee of Los Angeles County. This Committee was composed of Federal, State, County, local organizations and individuals within Los Angeles County.

You will observe from the attached map and information given that the acreage having a flood hazard problem, the acreage needing flood project action, the number of farms involved and the number of projects needed are shown. It will be noted that a large portion of area number 69, Cottonwood Creek Watershed, which needs protection is in Kern County.

If we can be of help in interpreting this report, please feel free to call on us.

Very truly yours,

Eursell S. Cordell
Soil Conservationist

Attachments

ESC/mb

Growth Through Agricultural Progress

(Copied 7-9-64/gc)

INVENTORY OF WATERSHED PROJECT NEEDS

Planning Unit - Cal-GB-CGB-69
Total Acres in Watershed - 145,822
Acres in Los Angeles County - 9,472
Number of Projects Needed - 1

Watershed Project Problems	Acres Having the Problem	Acres Needing Project Action	Number of Farms
1. Flood Prevention			
a. Flood Water and sediment damage reduction	2,500	2,500	15
b. Erosion damage reduction	2,000	2,000	10

Planning Unit - Cal-GB-CGB-70
Total Acres in Watershed - 104,302
Acres in Los Angeles County - 5,632
Number of Projects needed - 0

Watershed Project Problems: None

Planning Unit - Cal-GB-CGB-71
Total Acres in Watershed - 154,941
Number Acres in Los Angeles County 56,051
Number of Projects Needed - 0

Watershed Project Problems			
b. Erosion damage reduction	56,051		

Planning Unit - Cal/GB-CGB-81
Total Acres in Watershed - 232,567
Acres in Los Angeles County - 158,727
Number of Projects needed - 3

Watershed Projects Problems			
1. Flood Prevention:			
a. Flood Water and sediment damage reduction	70,000	70,000	75
b. Erosion damage reduction	20,000	20,000	30
2. Agricultural Water Management			
b. Irrigation	12,000	9,000	50

	Acres Having the Problem	Acres Needing Project Action	Number of Farms
Planning Unit - Cal-GB-CGB-82			
Total Acres in Watershed - 193,109			
Acres in Los Angeles County - 193,109			
Number of Projects needed - 5			
1. Flood Prevention			
a. Flood Water and Sediment damage reduction	20,000	20,000	200
b. Erosion Damage Reduction	100,000	80,000	125
Watershed Project Problems			
2. Agricultural Water Management			
b. Irrigation	18,000	15,000	65
3. Non-Agricultural Water Management			
b. Recreation		450	
Planning Unit - Cal-GB-CGB-83			
Total Acres in Watershed - 353,327			
Acres in Los Angeles County - 353,327			
Number of Projects needed - 3			
1. Flood Prevention:			
a. Flood Water and Sediment	45,000	45,000	135
b. Erosion damage reduction	140,000	102,000	275
2. Agricultural Water Management			
b. Irrigation	15,000	10,000	55
3. Non-Agricultural Water Management			
b. Recreation		1.000	
Planning Unit - Cal-GB-CGB-84			
Total Acres in Watershed - 189,811			
Acres in Los Angeles County - 73,091			
Number of Projects Needed - 1			
1. Flood Prevention:			
a. Flood Water and Sediment	40,000	14,000	10

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P.O. Box 392
Lancaster, California 93534

July 16, 1964

W. B. Carter
Chairman,
Advisory Committee
of the AVEK

Dear Whit:

I have received additional information from the Chairman of the Kern County Conservation Needs Committee, and their report shows the following flood hazard problem and the needed treatments in the East part of Kern County:

Planning Unit - Cal-GB-CGB-64
Total Acres in watershed - 157,528
Acres in watershed or planning unit in the county - 157,528
Number of projects - 1

Watershed project problems	Acres having the problem	Acres needing project action	Number of farms
1. Flood Prevention			
a. Flood Water and sediment damage reduction	40,000	40,000	50
b. Erosion damage reduction	12,000	12,000	5
2. Agricultural water management			
b. Irrigation			45

Planning Unit - Cal-GB-CGB-69
Total Acres in watershed - 145,822
Acres in watershed or planning unit in the county - 136,350
Number projects needed - 1

(con't on page 2)

Growth Through Agricultural Progress

PWS-0114-0159

(con't from page 1)

Watershed project problems	Acres having the problem	Acres needing project action	Number of farms
1. Flood Prevention			
a. Flood water and sediment damage reduction	123,928	123,928	100
b. Erosion damage reduction	37,000	37,000	
2. Agricultural water management			
a. drainage	15,000	15,000	20
b. Irrigation			100

RECONNAISSANCE OF GROUND WATER IN THE WESTERN PART OF THE MOJAVE DESERT REGION, CALIFORNIA

BY FRED KUNKEL

INTRODUCTION

PURPOSE AND SCOPE OF THIS PAPER

Interest in the cultural development of the Mojave Desert region of California has existed ever since completion of the first transcontinental railroad in 1869. Particularly since World War II, interest in the agricultural, industrial, military, and recreational potentialities of the area has greatly increased. Some parts of the region, such as Antelope Valley, are relatively well developed; other areas, such as Cuddeback and Superior Valleys, are virtually unchanged from the natural state.

Ground water is a vital resource in the development of the region, and there has been much speculation among geologists concerning Pleistocene and older drainage lines in the region. However, there are large areas where not only the older drainage lines but also the present source, occurrence, and movement of ground water are still unknown. To develop properly the water resources and to resolve many questions concerning the geologic history and structure of the region, knowledge of the source, occurrence, and movement of ground water in the region is necessary.

The purpose of this atlas is to summarize the progress of ground-water studies in the western part of the Mojave Desert region and to discuss areas where further study is necessary for an understanding of the source, occurrence, and movement of ground water.

EARLIER REPORTS ON THE REGION

Many geographic, geologic, and hydrologic reports have been written on the Mojave Desert region. The earliest significant general report is that of Fremont (1845), and the most comprehensive hydrologic report is that of Thompson (1929).

The geologic map of this report is generalized, in large part, after unpublished mapping made available by T. W. Dibblee, Jr., U. S. Geological Survey, and after earlier reports of the Geological Survey and of the California Division of Mines. No attempt was made to assemble here a complete list of references for the Mojave Desert region, but many pertinent reports were reviewed and are listed as references.

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GEOLOGY

FORMATIONS

For this atlas, the geologic formations of the Mojave Desert region are divided into four main groups based on age, distribution, and capacity to contain and yield water. The areal distribution of these groups, the consolidated rocks, the older alluvium and lacustrine deposits, the younger alluvium, and the younger lacustrine (playa) deposits, is shown on the geologic map, and their stratigraphic relations and lithologic character are discussed below.

Consolidated rocks.—The consolidated rocks are predominantly sedimentary, igneous, and metamorphic rocks of the pre-Tertiary basement complex and volcanic and sedimentary rocks of Tertiary age. In general, none of these rocks are significant sources of ground water, although small amounts may percolate through weathered and fractured zones.

The consolidated rocks surround the main valley areas and form the mountainous catchment areas from which runoff, flowing onto the alluvial fans, contributes most of the recharge to the ground-water bodies. These rocks also form the sides and bottoms of the alluvium-filled structural basins which contain the main ground-water bodies of the valleys.

Older alluvium and lacustrine deposits.—The older alluvium, the principal water-bearing material, is composed of undeformed to moderately deformed lenticular deposits of unconsolidated to poorly indurated silt, sand, gravel, and boulders; locally it includes terrace deposits. The older lacustrine deposits are predominantly silt, silty clay, and clay interbedded locally with thin beds of impure limestone, calcareous sandstone, conglomerate, and sand. Some of the older lacustrine deposits are interbedded with the older alluvium. The thickness of these deposits, determined from well logs, ranges from zero near the margins of the basins to as much as 1,500 or 2,000 feet in the central parts of the basins.

Where observed, the older alluvium and older lacustrine deposits unconformably overlie the consolidated rocks and are exposed in terraces along stream channels and washes. These deposits appear to be separated from the overlying younger alluvium and younger lacustrine deposits by an erosional unconformity. They are well exposed in the western part of Antelope Valley, along the Mojave River, and in Fremont, Indian Wells, and other valleys as shown on the geologic map. In these localities the older alluvium is compacted and is generally cemented by clay minerals formed from the weathering of the feldspar minerals. These deposits are generally considered to be early to middle Pleistocene in age, but the lowermost part may be late Tertiary in age.

The older lacustrine deposits locally contain coarse uncemented sand that yields large quantities of water; however, they are composed predominantly of silt and generally do not yield water freely to wells.

Younger alluvium.—The younger alluvium is composed of lenses of silt, sand, gravel, silt and gravel, sand and gravel, and boulders. These deposits overlie the older alluvium, the older lacustrine deposits, and the consolidated rocks. Well logs indicate that they range in thickness from 0 to 100 feet or more. They form a continuous and conformable sequence that probably spans an age range from late Pleistocene to Recent.

The younger alluvium is shown on the geologic map as a single sequence which, on larger scale maps, can be differentiated into several units. It was deposited largely by intermittent streams of low gradient or by distributaries from several coalescing alluvial fans. The younger alluvium is highly permeable and, where saturated, yields water freely to wells.

Younger lacustrine (playa) deposits.—The lowest parts of nearly all the closed desert basins are occupied by playas, or "dry lakes," most of which are nearly flat. These lakebeds are formed by the finest grained streamborne materials, which are transported to the lowest parts of the basins by infrequent runoff.

The younger lacustrine deposits consist principally of clay or silt, thin lenses of sand, and a little gravel. Locally they include evaporites which, in a few places, are of sufficient thickness and extent to be of economic value. The playa deposits overlie the older alluvium and older lacustrine deposits; along the margins they grade laterally into the younger alluvium. The thickness of these deposits ranges from 0 to 100 feet or more.

The playas are surfaces of active deposition; however, the playa deposits prob-

ably represent a continuous and conformable sequence of deposition from late Pleistocene to Recent time. The contact between the playa deposits and the older lacustrine deposits usually cannot be differentiated. Logs of typical wells that penetrate the playa deposits and underlying older lacustrine deposits are given by Pratt and Smith (1957) in their studies of Owens, China, Searles, and Panamint Lakes.

The clay and silt of the playa deposits are of low permeability, and, except for the scattered sand lenses, they generally are not a source of wa er.

The playas are differentiated on the geologic map according to whether they are of the dry, the moist, or the undetermined type. Because the nature of the playa is related to the occurrence, source, and movement of ground water, its significance is discussed in the ground-water section of this atlas.

GEOLOGIC STRUCTURE

The western part of the Mojave Desert region is characterized by numerous alluvium-filled intermontane basins. The principal structural controls in many of these basins are major faults which displace both the consolidated rocks and the alluvium. The two principal fault zones are the San Andreas, a northwestward-trending feature that has been traced from north of San Francisco to south of the Mexican border, a distance of about 1,000 miles; and the Garlock fault zone, a southwestward-trending fault zone which extends from its intersection with the San Andreas fault west of Lancaster, Calif., on the west almost to the Nevada-California State line on the east.

Between these two fault zones many northwestward-trending faults approximately parallel the San Andreas fault. Several of the most prominent are the Muroc, Helendale, Lockhart, and Gravel Hills faults, as shown on the geologic map. North of the Garlock fault, one of the principal structural features is the northward-trending Sierra Nevada fault, west of which the Sierra Nevada has been uplifted to an altitude of 14,450 feet above sea level. East of the fault the lowest altitude, in Death Valley, is about 280 feet below sea level.

Faulting that has resulted in significant displacement of the alluvial deposits has formed barriers that greatly impede or otherwise control the movement of ground water. On opposite sides of faults ground-water levels are locally displaced more than 300 feet.

GROUND WATER

Ground water may be defined as the water contained in pores, cracks, and other voids in the rocks and deposits that lie below the water table. Ground water in any locality has as its ultimate source the precipitation that falls on the drainage area tributary to that locality. It generally is not possible to collect for beneficial use more than a small part of the precipitation that falls on any area of appreciable size. A large part may be intercepted by plant foliage after a storm and evaporated without having reached the land surface. Of the precipitation that does reach the land surface, and that does not immediately run off, part remains on the surface and is subject to evaporation, and part seeps into the soil to satisfy the

moisture deficiency in the belt of soil water. From this shallow zone immediately below the land surface, water is discharged into the atmosphere by evaporation or is used by plants. Excess water, if any, can then percolate downward to the water table and recharge the ground-water body.

Ground water does not occur as "underground lakes" or "streams," except locally in areas of cavernous limestone or volcanic rocks. No such rocks are known to supply large quantities of water to wells in the Mojave Desert region. Except for minor amounts of water discharged by springs or by wells drilled in fractured zones in the consolidated rocks, the principal sources of ground water in the Mojave Desert region are the unconsolidated alluvial deposits that occupy the lower parts of the valleys.

Not all the unconsolidated deposits are equally capable of yielding water to wells. For example, loose rounded well-sorted gravel and sand are more permeable than are clay, silt, cemented sand, cemented gravel, and compacted angular poorly sorted material. The yields of wells are dependent on the permeability and the saturated thickness of the deposits in which the wells are completed.

In most of the basins in the Mojave Desert region the water table lies at or near the base of the younger alluvium, and, because the younger alluvium is largely unsaturated, most of the water that is withdrawn comes from the underlying older alluvium.

The western part of the Mojave Desert region is characterized by many closed topographic basins of interior drainage and by a series of successively lower basins, the lowest unit of which receives all the surface drainage from the entire series. The closed basins and the lowermost unit of the closed series of basins, having no surface outlet, are sites of playas, or dry lakes, where water is accumulated and discharged by evaporation and transpiration. Some topographically closed basins are hydrologically connected with similar adjacent basins; there is also ground-water underflow from the highest to the lowest basins of the interconnected series, the lowest of which has no surface or subsurface outlet.

Under the natural conditions that prevailed before development by pumping, a state of equilibrium existed in which the natural discharge equaled natural recharge and ground-water storage changed only seasonally and with periods of dry and wet years. Ground-water pumping upsets this natural balance, and if pumpage plus the natural discharge exceeds recharge, ground water will be taken from storage and water levels will decline. If pumping is prolonged sufficiently, the natural discharge will be lessened and may eventually cease, and water levels will continue to decline. Water levels will stabilize at a lower level when pumping becomes uneconomical because of decreased well yields, high pumping costs, or deterioration of water quality.

In many of the ground-water basins in the western part of the Mojave Desert region, it is impractical or impossible to intercept more than a small part of the natural discharge, and in most of the developed ground-water basins the annual withdrawal by pumping probably greatly exceeds the recharge. Most of the water

pumped from wells in the western part of the region has been and will continue to be withdrawn from storage. Such withdrawal from storage, or "mining" of ground water, can be considered practical in these desert areas, however, because limiting the use of water either to the perennial yield[1] or to the natural recharge would not allow full utilization of this important natural resource of stored water. In this regard, Snyder (1955) gave an excellent discussion of the legal and economic implications for an area of large overdraft (Antelope Valley).

ANTELOPE AND FREMONT VALLEYS AREA

The area comprising Antelope and Fremont Valleys is a series of basins in which ground water, under natural conditions, moves downgradient from one basin to the other. Precipitation on the entire drainage area, but mainly on the San Gabriel Mountains to the south and the Tehachapi Mountains to the west, is the source of most natural ground-water recharge to the area. The relatively small part of the precipitation that percolates to ground water as recharge moves, in general, from the margins of Antelope Valley toward the south end of Rogers Lake, where most of the water goes into the cone of depression formed by pumping for irrigation. Some water moves northward beneath Rogers Lake through a narrow alluvium-filled slot in the consolidated rocks and continues toward Koehn Lake in Fremont Valley. Increments of recharge also move toward Koehn Lake from the Boron area and from the area northeast of Koehn Lake.

Ground water also moves eastward through Tehachapi Valley into the Chaffee area, where the Muroc fault acts as a barrier, impeding but not preventing further movement eastward into Fremont Valley. The water-level contours on opposite sides of the Muroc fault indicate a displacement of water level of approximately 320 feet. The average depth to water in wells south of the fault is about 200 feet below the land surface, whereas water levels immediately north of the fault average more than 500 feet below the land surface.

Under natural conditions, the depth to water beneath parts of Proctor Lake in Tehachapi Valley and beneath Rosamond, Buckhorn, and Rogers Lakes in Antelope Valley is less than 10 feet. In most of Antelope and Fremont Valleys the water is of a quality suitable for irrigation and domestic uses. However, because Koehn Lake is the "sink," or "sump," for the entire area, ground water is virtually at the land surface beneath this playa; and, because of the evaporation and transpiration of water in the vicinity of the playa, the concentration of chloride exceeds 14,000 ppm (parts per million) and the dissolved solids are as high as 28,000 ppm.

Antelope Valley is the largest area in the Mojave Desert region in which successful agricultural development has resulted almost exclusively from ground-water pumping for irrigation. Consequently, the problem of water-level decline in the central part of the valley due to heavy pumping has been studied in greater detail than that in other valleys.

In Antelope Valley the use of ground water for agricultural purposes dates to the early 1880's, when it was discovered that in the lower parts of the valley wells drilled 200 to 500 feet deep yielded flowing water in quantities suitable for irri-

gation. According to Thompson (1929, p. 20), it was reported that in 1890 about a hundred wells were in use in the valley. Johnson (1911, pl. 6) showed the locations of 353 wells in 1908, many of which were within an area of artesian flow. Thompson (1929, pl. 326) at the completion of his fieldwork about 1920 reported data for 171 key water wells in Antelope Valley and estimated pumpage in the valley for the irrigation of 11,960 acres to be 38,100 acre-feet per year. In the period 1945-51 the land under irrigation increased from about 44,500 acres to about 70,000 acres, and the irrigated acreage may be larger at present (1959). During 1951-52 about 1,100 water wells of all types in the northeastern part of Antelope Valley were inventoried. Snyder (1955, p. 87) estimated that the net draft of ground water in Antelope Valley during 1951 was about 168,000 acre-feet. The water-level contours shown on the geologic map for Antelope Valley for the year 1954 show a considerable depression southeast of Rosamond Lake caused by the heavy pumping.

As the land most suitable for irrigation in the central part of Antelope Valley is still being developed agriculturally, the demand for water is increasing and many new wells are being drilled each year. Heavy ground-water withdrawls there decrease the amount of water locally available and cause the water levels to decline at an accelerated rate. This decline, in many cases, makes necessary the drilling of new wells or the deepening of old ones in order to maintain the previous supply. Increased annual use of water in this area only tends to aggravate the situation that now exists.

On the basis of data compiled by Snyder (1955, p. 87), it appears that overdraft in Antelope Valley, mainly a result of pumping for irrigation northeast of Lancaster, has existed at least since the early 1920's. It is estimated that the cumulative overdraft in the valley may have reached 1½ to 2 million acre-feet as of 1951 and probably exceeds that of any other ground-water basin in southern California. Some discharge still occurred in an area of artesian flow prior to 1954; however, during 1952-54 the uncapped wells flowed for less than 6 months a year and the discharge from flowing wells was negligible compared to the total discharge from pumping within the basin. All wells ceased to flow prior to 1955.

EL MIRAGE VALLEY AREA

El Mirage Valley is a small area at the west edge of the Upper Mojave Valley, east of Antelope Valley. The lowest part of the valley is occupied by a playa that appears to be of the dry type. The water level in one well at the west end of the playa in 1956 was about 18.8 feet below the land surface. One measurement in another well indicates that the depth to water beneath the playa in 1917 may have been as little as 16 or 17 feet below the land surface. According to Thompson (1929, p. 109), "This fact is believed to indicate that there is underground drainage from beneath the playa." However, the water-level contours, which were not available to Thompson, indicate a movement of water toward El Mirage Lake from all sides, suggesting that some evaporation from the playa occurs even though the depth to water is greater than 10 feet.

According to Thompson (1929, p. 125-126), in playas where the depth to water

is more than 10 feet below land surface, the ground water is too far below the surface to be discharged by capillary rise and evaporation. According to Lee (1912, p. 53), evaporation from bare soil does not occur where the depth to water exceeds 7½ or 8 feet. However, preliminary studies by the author in several desert playas indicate that in playas having tight soils evaporation takes place from bare surfaces where the depth to water is greater than 15 or 20 feet. Evaporation from the bare soil may occur locally where the depth to water exceeds 40 feet, but additional studies are necessary to demonstrate quantitatively that ground water is able to discharge from bare playa surfaces where the depth to water in wells exceeds 15 feet.

INDIAN WELLS AND SEARLES VALLEYS AREA

Indian Wells and Searles Valleys are two separate alluvium-filled valleys but are parts of the same drainage system. The maximum known thickness of the alluvium in Indian Wells Valley is 1,350 feet and of that in Searles Valley is 875 feet.

During the latter part of the Pleistocene epoch, Indian Wells and Searles Valleys were occupied by a single lake whose surface, at an altitude of about 2,265 feet, was about 640 feet above the present surface of Searles Lake and about 100 feet above the present surface of China Lake. At the close of Pleistocene time a gradual desiccation of Searles and China Lakes began, during which flow between the two lakes cut a low saddle in the Argus Mountains that drained China Lake into Searles Lake. As desiccation progressed, these two lakes became separated and eventually they dried up. The once-connecting channel is now partially filled with windblown sand.

China Lake now is a moist playa surrounded by a large area covered mainly with salt grass and pickleweed. Searles Lake also is a moist playa or swamp, and by virtue of underflow through the former surface-water channel it is the sink for all the drainage tributary to Indian Wells and Searles Valleys.

Ground water in Indian Wells Valley is derived mainly from precipitation on the Sierra Nevada. However, there is some underflow into the valley from the north through a narrow alluvium-filled channel, as well as recharge from precipitation on the Argus and El Paso Mountains and direct infiltration of precipitation on the valley floor.

Under natural conditions the ground water moved toward China Lake. The evapotranspiration in 1953 from the playa and surrounding moist land was estimated by the author at approximately 8,000 acre-feet, and in addition there was about 20 acre-feet of subsurface outflow into Salt Wells Valley, from which, in turn, a minor amount of very salty ground water was discharged as surface flow into Searles Valley .

Development of ground water in Indian Wells Valley has been extensive, and according to Lee (1913) many wells had been drilled in the valley prior to 1912. Thompson (1929) reported that as of 1919 about 800 acres was under cultivation. Pumpage in 1953 was about 2,800 acre-feet, and it increased progressively to about 10,000 acre-feet in 1959. Most of this water was pumped in the southern part of

the valley. The effect of the pumping is reflected by the water-level contours on the geologic map, which show a pumping depression in the vicinity of Ridgecrest. Water levels in the northern part of the valley and the rate of evapotranspiration from China Lake closely approximate natural conditions. This fact indicates that a large part of the water pumped from the southern part of the valley has been withdrawn from storage. It is estimated that the upper 100 feet of saturated alluvium in the central part of the valley contains about 720,000 acre-feet of ground water in storage. Therefore, if wells are properly spaced it will be possible to pump ground water from storage at present rates for many tens of years without importation of water from outside sources.

Except for a few springs, there are no known supplies of potable ground water in Searles Valley. The water beneath Searles Lake is highly saline and has been pumped for many years as a source of potassium and other valuable salts. Virtually all the potable water used in Searles Valley is imported by pipeline from Indian Wells Valley.

SUMMARY

Except for the monumental work of Thompson (1929), no comprehensive ground-water studies of the entire Mojave Desert region have been made. In many areas in the region the U. S. Geological Survey, in cooperation with the California Department of Water Resources, has conducted a continuing program of basic-data collection. Analysis, interpretation, and utilization of these data, however, have not progressed as fast as the water needs of the region. For the area north of the Garlock fault and east of Indian Wells Valley and for the Randsburg Wash-Granite Mountains area, virtually no ground-water data are available and none are being collected. For Antelope Valley many data, covering most of the valley, are available, but in relation to the intensive development of the area the study and analysis of the data are inadequate.

Because the rapidly expanding agricultural, urban, and industrial development in the Mojave Desert region is based for the most part on the mining of ground water, there exists for the entire Mojave Desert region a critical need for an accelerated and continuing program for collection of basic data, for detailed geologic studies with particular reference to ground water, and for studies of quantitative ground-water occurrence, source, and movement.

NOTE: The USGS is engaged in a detailed Ground Water Basin Survey for the Antelope Valley-East Kern Water Agency

[1] Perennial yield of a ground-water basin may be defined as the rate at which ground water can be withdrawn year after year without depleting the ground-water storage to such an extent that withdrawal at this rate is no longer feasible because of increased pumping costs or deterioration of water quality.

RECONNAISSANCE DESIGN OF THE AVEK CONVEYANCE SYSTEM

Delivery of water from the State water project to water purveyors such as County Waterworks Districts, County Water Districts, cities, public utility districts, irrigation districts, private and mutual water companies is an obvious necessity.

Within practical limits any number of methods of water delivery can be conceived. The engineering staff has had under study for several months the problem of ascertaining the "layout" which would yield the least costly but hydraulically compatible system for the ultimate delivery of maximum flows of State Project water. Extensive use of a very rapid computer (IBM 7094) has made it possible to analyze flow networks of 26 delivery systems. Analysis determined that minimum cost design criteria must include the following provisions:

a) That the costs assessable to AVEK by the State be minimized.

b) That nearly all water be treated at one central water treatment plant.

c) That water storage be located near the Tehachapi Tunnel at the maximum elevation.

d) That storage of raw water be approximately 25,000 acre-feet.

e) That such storage reservoir be multi-purpose, ie include recreation such as boating and fishing, with camping and picnicing, if feasible.

f) That finished water storage be provided of such capacity that water purveyors throughout the agency would not be required, except in special cases, to provide expensive surface storage of "State-AVEK" water.

g) That (d), (e) and (f) be financed by revenue bonds.

h) That pipeline sizes be determined such that head losses will be hydraulically consistent with homologous costs and service.

i) That the safety of structures be given every reasonable consideration and that no unnecessary exposure to the imminent hazards of siesmic disturbances along the San Andreas fault be taken by the location of vital structures thereon.

j) That provision be included in the distribution system location and design to utilize the ground water basin as an emergency peaking reservoir.

k) That provisions be included in the distribution system to recharge the ground water basin and facilitate reclamation of waste waters for agricultural uses.

l) That provisions be made to minimize evaporation and seepage losses in aqueducts, conduits, reservoirs and waste waters.

m) That provisions be made to minimize the hazards from flood waters.

n) That the least costly distribution system be capable of being constructed in units and at different times as the need for water arises; and to separate the system between Kern County and Los Angeles County segments of AVEK.

o) That certain units of the distribution system be capable of transporting water from areas of water surplus to water deficient areas prior to the time imported water is received.

p) That the cost of delivery of water to Edwards not become a burden upon Kern County.

The engineering staff have developed a distribution system and method of delivery which conforms to the operational requirements and the aforementioned conditions.

COMPARISON OF COSTS OF VARIOUS METHODS OF WATER CONVEYANCE FROM THE STATE SYSTEM TO COMMUNITIES IN AVEK

The following tabulation briefly describes 20 of the most significant methods of water distribution which have been studied. A cost index is shown for each case. The cost index reflects relative construction financing and operation costs of both State and AVEK systems.

LEAST COST SYSTEM

The system finally selected is case No. 20 with a cost index of 66.58. If case No. 1 and case No. 20 were constructed at the same time under similar conditions the cost of case No. 1 would be 9.8 million dollars more than case No. 20 and the annual cost of operation in 1985 would be 0.5 million dollars more in case No. 1 than for case No. 20.

IMPROVEMENT DISTRICTS VS AGENCY WIDE FINANCING

Cost analysis have been made of the effects of :

1. An Agency wide Bond Issue to finance the conveyance system; selling the bonds in 5 series in the years 1969, 1973, 1976, 1979 and 1985.
2. Separating the systems substantially between Los Angeles County and Kern County resulting in the formation of seven Improvement Districts, numbers 10, 11, 12, 12a, 13, 13a and 14.

If the Kern County area were to secede from AVEK, the design would be modified to provide that capacity for the supply of water to Edwards Air Force Base be a responsibility of Kern County.

Results of analysis of projected costs shown in Tables 3, 4, 5, 6, 7 and 8 show the effect severance of Kern County area from AVEK would have on tax rates and costs.

SUMMARY OF CONVEYANCE METHODS STUDIED BY AVEK

Cost index numbers reflect relative costs of construction and operation of both State and AVEK systems.

METHOD OF DELIVERY	COST INDEX
1. - Service from 13 connections on East Branch Aqueduct and one connection from West Branch at Lake Hughes. 132% seasonal peaking provided by State at Cedar Springs Reservoir. 14 separate treatment plants and sanitary storage for treated water of sufficient capacity to meet daily peak demands. A grid arterial conveyance system consisting of cement lined and coated steel pressure pipe.	74.32
2. - Service from 5 connections on East Branch Aqueduct and one connection on West Branch at Lake Hughes. 132% seasonal peaking provided by State at Cedar Springs Reservoir. 6 separate treatment plants and sanitary storage for treated water of sufficient capacity to meet daily peak demands. A grid arterial conveyance system consisting of cement lined and coated steel pressure pipe.	72.29
3. - Same as Case 2 except that seasonal peaking is provided from wells drilled by AVEK in the vicinity of Ave. G and Sierra Highway.	73.63
4. - Service from one connection on East Branch Aqueduct at Fairmont division point and one connection on West Branch at Lake Hughes. 132% peaking provided by State at Castaic Reservoir. Two treatment plants and sanitary storage for treated water of sufficient capacity to meet daily peak demands; one large treatment and storage facility in the vicinity of Fairmont Reservoir and one small facility at Lake Hughes. A fully reticulated network conveyance system consisting of cement lined and coated steel pressure pipe.	68.92
5. - Same as Case 4 except that seasonal peaking is provided from wells drilled by AVEK in the vicinity of Ave. G and Sierra Highway.	72.02
6. - Same as Case 5 except that seasonal peaking provided from 25,000 acre-foot capacity AVEK reservoir in the vicinity of Fairmont Reservoir.	67.30
7. - Service from three connections from state project; one connection at east portal of Tehachapi Tunnel, one connection on East Branch Aqueduct at Fairmont division point, and one connection on West Branch Aqueduct at Lake Hughes. 132% peaking provided by State at Castaic Reservoir. 3 separate treatment plants and sanitary storage for treated water of sufficient capacity to meet daily peak demands. A fully reticulated network conveyance system consisting of cement lined and coated steel pressure pipe.	71.53
8. - Same as Case 7 except that seasonal peaking provided from wells drilled by AVEK in the vicinity of Ave. G and Sierra Highway.	74.40
9. -Service from one connection from State Project at east portal of Tehachapi Tunnel. 132% peaking provided by State at Castaic Reservoir. One treatment plant and sanitary storage of treated water of sufficient capacity to meet daily peak demands. A fully reticulated network conveyance system consisting of cement lined and coated steel pressure pipe.	73.93
10. - Same as Case 9 except that seasonal peaking provided from wells drilled by AVEK in the vicinity of Ave. G and Sierra Highway.	75.32
11. -Same as Case 9 except that seasonal peaking provided from 25,000 acre foot reservoir built by AVEK in vicinity of Cottonwood Canyon.	70.40
12. - Service from one connection from State Project at east portal of Tehachapi Tunnel. Seasonal peaking	

METHOD OF DELIVERY	COST INDEX
provided from 25,000 acre-foot reservoir built by AVEK in vicinity of Fairmont Buttes. One treatment plant and sanitary storage for treated water of sufficient capacity to meet daily peak demands. A high pressure feeder and grid conveyance system comprising the Central Desert Aqueduct, Ave. D route, and smaller distribution mains. All pipelines cement lined and coated steel pressure pipe. Construction costs to be borne jointly by AVEK, Palmdale Irrigation District, Littlerock Creek Irrigation District, Mojave Water Agency and Crestline-Lake Arrowhead Water Agency.	68.14
13. - Same as Case 12 except that operating pressures will be substantially lower.	69.40
14. - Same as Case 12 except that no other agencies participate in construction costs or use of facilities.	66.51
15. - Service from two connections from State Project at east portal of Tehachapi Tunnel (Elevations 3112 and 3344) and one connection from West Branch Aqueduct in the vicinity of Quail Lake. 132% seasonal peaking provided by State at Castaic Reservoir. Three separate treatment plants and sanitary storage for treated water of sufficient capacity to meet daily peak demands. Part of sanitary storage provided by 10% regulatory capacity in mains. A feeder and grid conveyance system comprising the Central Desert Aqueduct, Ave. D route, and smaller distribution mains. All pipelines cement lined and coated steel pressure pipe. Construction costs borne jointly by AVEK, Palmdale Irrigation District, Littlerock Creek Irrigation District, Mojave Water Agency and Crestline-Lake Arrowhead Water Agency.	67.65
16. - Service from one connection from State Project at east portal of Tehachapi Tunnel. Seasonal peaking provided by 25,000 acre-foot reservoir built by AVEK in vicinity of Fairmont Buttes. One treatment plant and sanitary storage for treated water of sufficient capacity to meet daily peak demands. A feeder and grid conveyance system comprising the Central Desert Aqueduct, Diagonal Route, and small distribution mains. All pipelines cement lined and coated steel pressure pipe. Construction costs borne jointly by AVEK, Palmdale Irrigation District, Littlerock	
17. -Same as Case 16 except that the East Kern County portion of AVEK is omitted from AVEK's service area.	64.18
18. -Same as Case 16 except that the East Kern County portion of AVEK is omitted and no other agencies participate in construction costs or use of facilities.	69.41
19. -Same as Case 15 except that the Central Desert Aqueduct follows Diagonal Route.	66.24
20. - Same as Case 16 except that no other agencies participate in construction costs or use of facilities. Also, seasonal peaking provided from 25,000 acre-foot reservoir in the vicinity of Cottonwood Canyon.	66.58

POPULATION PROJECTIONS
ANTELOPE VALLEY-EAST KERN WATER AGENCY

CALENDAR YEAR	PROJECTIONS					
	POPULATION			ASSESSED VALUATION		
	LOS ANGELES COUNTY (THOUSANDS)	KERN COUNTY (THOUSANDS)	TOTAL (THOUSANDS)	LOS ANGELES COUNTY ($ MILLION)	KERN COUNTY ($ MILLION)	TOTAL ($ MILLION)
1963	66	24	90	$ 105.5	$ 41.1	146.6
64	77	26	103	123.8	43.4	167.2
1965	87	29	116	139.4	46.5	185.9
66	98	31	129	157.7	49.4	207.1
67	106	34	140	170.3	52.5	222.8
68	115	36	151	185.3	55.6	240.9
69	129	38	167	206.6	59.0	265.6
1970	139	41	180	222.4	62.6	285.0
1971	151	44	195	242.4	66.8	309.2
72	165	46	211	265.0	70.1	335.1
73	176	47	223	281.2	73.8	355.0
74	189	50	239	303.2	77.8	381.0
1975	202	52	254	323.5	81.9	405.4
76	215	54	269	343.6	86.3	429.9
77	231	56	287	368.5	90.7	459.2
78	244	59	303	389.9	95.5	485.4
79	258	62	320	412.5	100.5	513.0
1980	274	64	338	436.6	105.6	542.2
1981	286	68	354	456.2	111.9	568.1
82	300	72	372	478.8	118.5	597.3
83	320	76	396	510.6	125.4	636.0
84	338	80	418	538.9	132.8	671.7
1985	352	84	436	560.7	140.4	701.1
86	368	89	457	587.1	148.4	735.5
87	388	94	482	619.2	156.9	776.1
88	410	98	508	652.9	165.7	818.6
89	421	103	524	670.3	174.8	845.1
1990	438	108	546	697.4	184.2	881.6
1991	459	113	572	730.7	193.9	924.6
92	475	119	594	757.2	203.9	961.1
93	491	124	615	782.0	214.3	996.3
94	510	130	640	813.2	224.9	1038.1
1995	525	135	660	836.2	235.9	1072.1
96	530	140	670	843.2	247.1	1090.3
97	549	146	695	874.2	258.4	1132.6
98	566	152	718	901.7	270.2	1171.9
99	583	157	740	928.0	282.2	1210.2
2000	598	162	760	951.1	294.6	1245.7
2035						

CURRENT ASSESSED VALUATION AND AREA OF AVEK

ASSESSED VALUATION	LOS ANGELES COUNTY	% OF TOTAL	KERN COUNTY	% OF TOTAL	TOTAL
SECURED	$ 76,885,427	73.8%	$ 27,315,420	26.2%	$ 104,200,847
UNSECURED	8,796,040	75.9	2,796,240	24.1	11,592,280
UTILITY	21,537,810	66.2	11,003,500	33.8	32,541,310
TOTAL (12-15-63)	$107,219,277	72.3%	$ 41,115,160	27.7%	$ 148,334,437

AREA

DATE	ACRES	SQUARE MILES	% OF TOTAL	ACRES	SQUARE MILES	% OF TOTAL	ACRES	SQUARE MILES
12-15-63	611,206	955	42.9%	812,800	1,270	57.1%	1,424,006	2,225

METHOD OF PAYMENT OF STATE WATER PROJECT COSTS
ASSESSABLE TO AVEK

CALENDAR YEAR	ALLOCATION OF STATE PROJECT WATER (ACRE-FEET)	STATE WATER DELIVERY SYSTEM								
		STATE WATER DELIVERY SYSTEM COSTS TO BE PAID FROM AGENCY TAXES					STATE PROJECT COSTS TO BE PAID FROM SALE OF WATER			
		PRINCIPAL (CAPITAL COST DURING CONSTR.) ($ THOUSANDS)	INTEREST ($ THOUSANDS)	MINIMUM ENERGY CHARGE ($ THOUSANDS)	TOTAL ($ THOUSANDS)	APPROX. TAX RATE ($/$100)	ENERGY COSTS FOR PUMPING ($ THOUSANDS)	DELTA CHARGE ($ THOUSANDS)	TOTAL ($ THOUSANDS)	APPROXIMATE WATER RATE ($/ACRE-FOOT)
1963		$ 3.8	$ 23.5	$	$ 27.3	$0.02	$	$	$	$
64		9.1	54.3		63.4	0.04				
1965		19.6	115.9		135.5	0.07				
66		38.4	225.2		263.6	0.13				
67		67.1	389.4	7.6	464.1	0.21				
68		100.4	573.6	47.1	721.1	0.30				
69		113.0	622.5	55.5	791.0	0.30				
1970		124.7	661.5	62.2	848.4	0.30				
1971		143.8	742.9	77.9	964.6	0.31				
72	20,000	154.6	767.9	178.6	1,101.1	0.33	411.7	99.9	511.6	25.58
73	25,000	164.7	785.4	181.4	1,131.5	0.32	502.2	124.8	627.0	25.08
74	30,000	176.8	812.6	186.2	1,175.6	0.31	595.2	149.8	745.0	24.83
1975	35,000	188.5	833.8	206.7	1,229.0	0.30	689.5	174.8	864.3	24.69
76	40,000	202.0	863.0	207.4	1,272.4	0.30	793.2	199.7	992.9	24.82
77	45,000	211.9	866.0	206.9	1,284.8	0.28	885.4	224.7	1,110.1	24.67
78	50,000	221.8	865.9	206.2	1,293.9	0.27	965.5	339.0	1,304.5	26.09
79	55,000	231.2	860.1	206.0	1,297.3	0.25	1,055.9	372.9	1,428.8	25.98
1980	60,000	240.4	850.9	221.3	1,312.6	0.24	1,302.8	406.8	1,709.6	28.49
1981	65,000	250.0	841.3	226.5	1,317.8	0.23	1,530.8	440.7	1,971.5	30.33
82	70,500	260.0	831.3	231.9	1,323.2	0.22	1,788.3	478.0	2,266.3	32.15
83	76,000	270.4	820.9	231.2	1,322.5	0.21	1,908.2	515.2	2,423.4	31.89
84	81,500	281.3	810.1	234.6	1,326.0	0.20	2,161.6	552.5	2,714.1	33.30
1985	87,000	292.5	798.8	239.1	1,330.4	0.19	2,424.1	589.8	3,013.9	34.64
86	92,500	304.4	788.2	235.7	1,328.3	0.18	2,499.7	627.1	3,126.8	33.80
87	98,000	316.6	776.1	238.7	1,331.4	0.17	2,754.7	664.4	3,419.1	34.89
88	103,500	329.2	763.4	241.2	1,333.8	0.16	3,005.1	701.7	3,706.8	35.81
89	109,000	342.4	750.2	240.0	1,332.6	0.16	3,120.6	739.0	3,859.6	35.41
1990	114,500	356.1	736.5	242.3	1,334.9	0.15	3,376.7	776.3	4,153.0	36.27
1991	120,000	370.3	722.3	241.1	1,333.7	0.14	3,490.6	813.5	4,304.1	35.87
92	120,000	385.2	707.5	241.1	1,333.8	0.14	3,490.5	813.5	4,304.0	35.87
93	120,000	400.6	692.1	241.1	1,333.8	0.13	3,490.2	813.5	4,303.7	35.86
94	120,000	416.6	676.0	241.1	1,333.7	0.13	3,490.0	813.5	4,303.5	35.86
1995	120,000	433.2	659.4	241.1	1,333.7	0.12	3,489.8	813.5	4,303.3	35.86
96	120,000	450.6	642.1	241.1	1,333.8	0.12	3,489.7	813.5	4,303.2	35.86
97	120,000	468.6	624.0	241.1	1,333.7	0.12	3,489.6	813.5	4,303.1	35.86
98	120,000	487.3	605.3	241.1	1,333.7	0.11	3,489.5	813.5	4,303.0	35.86
99	120,000	506.8	585.8	241.1	1,333.7	0.11	3,489.4	813.5	4,302.9	35.86
2000	120,000	527.1	565.5	241.1	1,333.7	0.11	3,489.4	813.5	4,302.9	35.86
	120,000	1.3	0.1	241.1	242.5		3,489.4	813.5	4,302.9	35.86
	TOTALS	$23,472.1	$31,159.4	$15,261.9	$69,893.4		$188,799.8	$44,786.1	$233,585.9	

S-116

PWS-0114-0177

RESOLUTION NO. 30

RESOLUTION OF THE
ANTELOPE VALLEY-EAST KERN WATER AGENCY
IN THE MATTER OF THE PORTAL RIDGE WATERSHED APPLICATION
FOR ASSISTANCE UNDER PUBLIC LAW 566, 83rd CONGRESS, AND AMENDATORY ACTS

To: California State Soil Conservation Commission,
Sacramento, California

BE IT RESOLVED AS FOLLOWS:

WHEREAS, on the 22nd day of May, 1961, the Board of Directors of the Antelope Valley-East Kern Water Agency, after due consideration of all available relevant facts and information, authorized t' sponsorship of an application under Public Law 566, 83rd Congress, and A.. .ndatory Acts covering assistance on the Portal Ridge Watershed; and

WHEREAS, the Board of Directors of the Antelope Valley-East Kern Water Agency has investigated the preliminary information on flood damage, sedimentation, drainage, and erosion needs in the said Watershed area substantiating the statements of the application; and

WHEREAS, the evidence relative to benefits of Public Law 566, 83rd Congress, and Amendatory Acts in providing the necessary measures of relief in the Portal Ridge Watershed area are deemed to be substantial, desirable, and necessary to public and private properties and in the general public interest;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Antelope Valley-East Kern Water Agency does hereby endorse, support, and co-sponsor, as the local organization, the application on the said Portal Ridge Watershed under Public Law 566, 83rd Congress, and Amendatory Acts.

BE IT FURTHER RESOLVED that the Board of Directors does hereby authorize the President of said Board to execute all necessary papers and documents in furtherance of the application.

CERTIFICATION

I, the undersigned, being Secretary of the Board, Antelope Valley-East Kern Water Agency, do hereby certify that the above is a true and exact copy of the Resolution adopted by the Board of Directors at a meeting held on the 22nd day of May, 1961.

_____Secretary of the Board

ANTELOPE VALLEY-EAST KERN WATER AGENCY

UNITED WATER CONSERVATION DISTRICT
333 West Harvard St. • Santa Paula, California • 93060
P. O. Box 432 • Phone 805 • 525-4431

June 19, 1964

Mr. W. B. Carter, Chairman
Advisory Committee
Antelope Valley-East Kern Water Agency
554 West Lancaster Blvd.,
Lancaster, California

Dear Whit:

United's recreation facilities at Lake Piru have been operated for the past six years under two agreements, a management agreement and a concession agreement, between a manager-concessionaire and the District.

The management agreement provides that the District shall receive 17% of the gross income from boat licensing fees and vehicle parking fees. An additional 10% of the gross income from the same source is paid to the District by the manager-concessionaire to be set aside in a special fund called the "building fund" to be used exclusively to finance the cost of permanent improvements "movable or otherwise" for the recreation program. Some time ago the Board of Directors elected to allocate the 17% of the District's share of the income under this management agreement to this "building fund" also, with a view to expediting the completion of the recreation construction program.

The concession agreement provides that the District shall receive 10% of the gross receipts from boat, motor and equipment rentals and mooring fees, 6% of the gross sales of gasoline, food, accessories and beach togs, bait and tackle, candy-pop-cigarettes, and also 2% of all boat and motor sales. The Board has also elected to allocate the District's share of these revenues to the "building fund".

In the beginning, in order to get the recreation program under way, the District set aside $25,000 of general fund money from which advances for construction and equipment were made as required. This amount had since been paid back to the general fund out of the revenues from recreation under the above agreements.

Some of the recreation facilities which have been provided to date from these recreation revenues are as follows:

1. Picnic ground - near the recreation area with running water and sanitary facilities.

2. Small camp ground - near the recreation area with fireplaces and running water.

3. Large fifty-site camp ground near the head of the lake with running water and sanitary facilities.

4. Gatehouse office with plumbing and water piped in.

5. Mobile home slabs for employees' trailers.

6. Twelve paved launching ramps. (Eight under construction at present time).

7. Forty shoreside cabanas. (Under construction at present time.)

8. Two-acre public paved parking area adjacent to launching ramps. (Under construction.)

9. 8' x 20' double faced highway sign on Highway 126.

10. Area roads built, maintained and repaired.

Other recreation facilities provided by the manager-concessionaire consist of the following:

1. Floating galley or snack bar where hot dogs, hamburgers, coffee and cold drinks are sold and which also contains a sports and beach wear shop where skis, ski belts, ski ropes, suntan lotion, and other items are sold.

2. Floating dock containing mooring slips for rental skiffs, fueling dock where gasoline, oil and outboard motor fuel are sold and also containing a bait and tackle shop where boats, motors and boating accessories are sold.

3. Floating marina containing mooring slips for motor boats belonging to lake patrons.

4. Forty fishing skiffs and twenty outboard motors for rental purposes.

5. Boat and motor repair service shop and dry land storage area.

As noted above, none of the revenues derived from the recreation program has, as yet, been diverted for operation and maintenance of District conservation facilities, nor have they been used to retire any of the debt incurred to finance construction of the reservoir. However, it is possible that when the recreation expansion program is brought to a conclusion a large portion of the District's share of the recreation revenues will go into the general fund and thereby help to reduce the tax rate.

One of the factors contributing to the irregular annual pattern of the recreation income is the District's obligation to release the stored water from the reservoir in accordance with the conservation program. United is a conservation district and the dam was built to conserve the runoff flood waters which would otherwise waste to the sea. This release program results in wide annual variations in the water level of the lake and in dry years can produce a dry lake. Naturally, more recreation seekers will be attracted when the lake is full or has a reasonably large amount of water in it. Fishermen don't seem to require so much water but water skiers do.

Another factor, and one which we believe has contributed in a large part to the success of the recreation program which we have enjoyed to date, is the accessibility of Lake Piru to the recreation minded city dwellers of the Los Angeles area. It is estimated that ninety percent or more of the lake patrons come from that area.

We are enclosing one copy each of the management agreement and the concession agreement along with a breakdown by months of the recreation revenue for the calendar year 1963. We have also prepared some statistics on attendance and water levels which might be of interest to you. The enclosed recreation brochure has been recently brought up to date and is quite informative.

October of 1960 our Board adopted a "Master Plan for Lake Piru Recreational Development" as a pattern for future development. Our current recreation construction program is an outgrowth of this plan supplemented by the recommendations of our Recreation Advisory Committee which is composed of five members not associated with the District in any other way.

We hope the foregoing and the accompanying data will be of some value to your committee and we shall be happy to provide any further information we have available.

Very truly yours,

Wm. P. Price, Jr.
General Manager and Chief Engineer

Enclosures

ANTELOPE VALLEY
FEATHER RIVER PROJECT ASSOCIATION, INC.

Post Office Box 884
Palmdale, California

September 6, 1956

Mr. Harvey O. Banks
Director of Water Resources
State of California
Sacramento, California

Mr. Clair A. Hill
Chairman
State Water Board
State of California
Sacramento, California

Gentlemen:

In accordance with the "Notice of Hearing" issued some weeks ago regarding Bulletin No. 3, the Antelope Valley Feather River Project Association is taking this opportunity to present some facts which we believe should be brought to the attention of your Board before the final printing of the California Water Plan for presentation to the State Legislature in 1957.

Antelope Valley is in the Lahontan Area designated "Hydrographic Area No. 6" on Plate 1 of the Major Hydrographic Areas of California as shown in Volume III of the State Water Resources Board Bulletin No. 3.

The above presentation of the California Water Plan subdivides the Lahontan Area into regional groupings, the Antelope Valley being thus in the Mojave Group marked as "Hydrographic Unit No. 12" on page 11-9 of Volume III.

The remarks herein will be confined to the region known as the Antelope Valley, an area of some 2,416 square miles, with some 600,000 acres classified as suitable for irrigation.

Your attention is directed to some of the inconsistencies which exist in your report as regards our area. On page 11-5 it is stated Lancaster has the most notable increase in permanent population in the area, yet the table on the next page shows a population of only 3,600. Today, Lancaster has a population of 22,000 persons. The Lancaster Sanitation District is presently building a sewage disposal facility for its area of 22,380 acres designed to serve a population or population equivalent of 136,000 and to handle an average daily flow of 13.6 million gallons.

A detail not pointed out in your report is that Lancaster was not the only area which has had such an increase in population. Antelope Valley population figures for 1956 are as follows:

Lancaster	22,000
Palmdale	12,709
Quartz Hill	6,000
Edwards	7,000
Rosamond	2,234
Mojave	4,500
Other Valley areas	10,000

The above figures show over 60,000 persons living in this area.

Table 11-2 shows 226,000 acre feet as a mean seasonal requirement, yet on page 20 of the Memorandum Report, it was estimated that in 1953, 480,000 acre feet were pumped from the ground water supply.

Directing your attention to page 11-67, the report shows the Littlerock Irrigation District and the Palmdale Irrigation District serving a combined total of 1,216 acres of irrigated lands, and 1,027 domestic services. At the present time, the Palmdale Irrigation District alone serves 2,610 meters. Today's figures for those two Districts show 1,250 acres in irrigation and 2,910 domestic services.

The two County Water Works Districts in Lancaster serve not 2,314 domestic services but a total of 6,447 domestic services and there are 15,560 acrea in the area.

The new Quartz Hill County Water District serves 658 domestic services with a number of planned subdivisions already annexed to their District. The adjacent Palm Ranch Mutual Water Company has 580 services, so these two plants alone serve more than the thirty-one Mutual Companies you show as serving 1,375 domestic services.

Page 11-68 speaks of the 1955 "Memorandum Report on Water Conditions in Antelope Valley". Referring to that Memorandum Report, we turn to page V, the letter of transmittal, which states that no field sutdies were conducted due to limited funds available.

On page 27 of that report in paragraph 7, it states: "Due to the relative location of this rich agricultural valley with respect to the Los Angeles Metropolitan Area, the Valley's recent and prospective growth both in urban and agricultural developments, the existing large overdraft, and in consideration of the prospective supplemental water supply from the Feather River Project, it is believed a comprehensive geologic and hydrologic investigation of the area is needed."

SUMMARY

The Antelope Valley is vitally in need of supplemental water in large quantities. The pioneers of Antelope Valley of the present day are similar to the early pioneers of Los Angeles. Los Angeles is the great city that it is today because of the vision of those pioneers who obtained water sufficient to meet the constant ever-increasing demand. The pioneers of the Antelope Valley today realize that this will one day be one of the great industrial, residential and military manufacturing centers on the West Coast. This area needs water presently and with water can shoulder a part of the burden of moving California forward.

The Antelope Valley Feather River Project Association and its members ask that a "real good look" be given our desert area regarding supplemental water, and we urgently request a comprehensive study be made regarding the economic, geologic and hydrologic factors involved.

Sincerely yours,

/s/ Dell L. Falls
President, Antelope Valley
Feather River Project Association

/s/ Murray D. Pond
Secretary, Antelope Valley
Feather River Project Association

Approved by the Board of Directors of
Antelope Valley Feather River Project
Association, Inc., September 4, 1956

(Copied 7-10-64/gc)

June 11, 1964

Honorable Warren M. Dorn
Supervisor Fifth District
Room 869 Hall of Administration
500 West Temple Street
Los Angeles 12, California

Subject: Information Requested in a Joint Letter from the Antelope Valley Soil Conservation District, and Antelope Valley-East Kern Water Agency.

Dear Sir:

We appreciate the receipt of information from your office in reply to our request of February 11, 1964. We also appreciate the presence of Mr. Breivogel and Mr. Holden from the Planning Commission meeting with us yesterday.

In our meeting yesterday a number of items were discussed that would strengthen our program if it were possible to have the Board's concurrence. These particular items pertained to point 1 and 2 in the above letter to you of February 11, 1964. Perhaps this information can be made as as an adenda to your answer letter of May 11, 1964.

Very truly yours,

Raymond H. Krueger
President,
Portal Ridge Watershed
Action Committee

(Copied 7-10-64/gc)

June 29, 1964

Honorable Warren M. Dorn
Supervisor Fifth District
Hall of Administration Room 869
500 West Temple Street
Los Angeles, California 90012

Dear Sir:

SUBJECT: Additional Comments Regarding Portal Ridge Development Project as Requested by Raymond H. Krueger, President Portal Ridge Watershed Action Committee.

Mr. Raymond H. Krueger, in his letter to you under date of June 11, 1964, requested additional comments concerning a portion of the Portal Ridge Flood Control proposal to supplement those contained in our letter to you under date of May 11, 1964. Those comments refer to the justification for flood control work which would make usable for urban development purposes some 3,870 acres of land, lying northwest of the community of Lancaster, which are now shown in County records as having a history of inundation. The comments of this office follow.

1. As indicated in our letter of May 11, a substantial population increase has been projected by the Regional Planning Commission for Antelope Valley within the next 30 years. This growth will be concentrated around each of a limited number of existing communities, by far the largest of which will be Lancaster. Lancaster assumes particular importance because of its central location within the Valley and because of the substantial concentration of commercial and service facilities already existing at this location. Areas close in to the center of the Lancaster Community may therefore, expect to experience the greatest pressure for urban development within the next few years. The area to the northwest of Lancaster, which is the subject of these comments, is an area which would experience this demand if it were otherwise available for development, that is to say, if it did not have flood problems.

2. The residential development pattern of the Community of Lancaster may be expected to extend in both an easterly and westerly direction rather than to the north or the south because of the existence in those directions of limiting non-residential urban and open uses. These include Fox Airport, adjacent industrial areas, and Edwards Air Force Base to the north, and U.S. Air Force Plant 42, together with open areas lying under its runways, located

to the south.

3. The strong tendency of residential areas to move westerly from the present center of Lancaster, may be further supported by the existence and planned future expansion of the County Regional Administrative Center for Antelope Valley at 10th Street West and Avenue "J", and the existence and planned expansion of Antelope Valley Junior College northwest of the intersection of 35th Street West, and Avenue "K". In addition, a large regional park is planned lying north of Avenue "J" between 50th and 60th Streets West. Plans exist for the development of numerous school sites and for appropriate neighborhood shopping centers in this area also.

4. The westerly portion of the Lancaster community including the 3,870 acres under consideration, is ideally located with relation to major sources of employment present and future, including Fox Air Field, Air Force Plant 42 and central Lancaster, thus making possible a considerable savings in travel cost and time for those living in this area and working within the nearby areas of employment.

5. The land area subject to inundation which is under discussion here, was not shown as urbanized on the North County Plan prepared by the Regional Planning Commission under date of July 1, 1961 because of the lack of detailed information at the time the plan was prepared as to the probability of eliminating adverse flood conditions and because of the absence of information on when flood control works might be constructed. The firming up of plans and the actual construction of flood control works would bring about a reconsideration by the Commission of the potential use of the affected properties in the directions reported in our letter of May 11.

6. Factors supporting the early development of the land here under consideration will be further reinforced by the construction according to plans now under preparation of the Antelope Valley freeway through the easterly portion of the area. Costs of flood control works will be less if the work can be coordinated with the planning and construction of the freeway.

7. Without the elimination in the near future of the flood problems affecting affecting subject properties, a pattern of irregular land ownerships and of mixed uses may be expected to be generated in the area which will create a blighting affect on the area and substantially reduce the future potential for urban development at this strategic location in Antelope Valley. These blighting factors may be expected to have a further depressing affect on adjacent areas.

8. The land under consideration is not suited to agricultural uses because of the poor quality of the soil. Its conservation for urban uses will make it possible to reduce the spillover of urban development onto productive agricultural land,

thus helping to achieve a major objective of the North County General Plan as adopted by the Regional Planning Commission.

Yours very truly,

THE REGIONAL PLANNING COMMISSION

Milton Breivogel, Director of Planning

nb

cc: John A. Lampie, County Engineer
Joe Pollard, Deputy, Fifth District
Raymond H. Krueger, Chairman
Portal Ridge Watershed Action Committee

(Copied 7-10-64/gc)

JOHN A. LAMBIE
COUNTY ENGINEER

COUNTY OF LOS ANGELES

DEPARTMENT OF COUNTY ENGINEER
108 WEST SECOND STREET
LOS ANGELES 12, CALIFORNIA
MADISON 9-4747

HARVEY T. BRANDT
CHIEF DEPUTY
LLOYD B. KNOX
ASST .CHIEF DEPUTY
CASSATT D. GRIFFIN
ASST. CHIEF DEPUTY
LAWRENCE D. MOORE
ASST. CHIEF DEPUTY

July 10, 1964

Board of Directors
Antelope Valley-East Kern Water Agency
Lancaster, California

Gentlemen:

FORMATION OF DISTRICT FOR
FLOOD CONTROL PURPOSES

In accordance with our recent discussion with your Chief Engineer and General Manager, we have been requested to express our views to your honorable body on the subject of flood control improvements. This department has reviewed the proposed Improvement District No. 2 to be formed for acquiring rights of way and constructing major drainage channels to protect portions of Antelope Valley in the vicinity of Lancaster. The proposal to coordinate these improvements with the construction of the Antelope Valley Freeway in order to achieve significant savings in both the construction of the freeway and the construction of the channel is an excellent one.

As you know, the Department of County Engineer, through such laws as the Subdivision Ordinance and the Building Laws, administers local drainage throughout the unincorporated areas of Los Angeles County. This work includes the review of all subdivisions, building activity and other related developments for flood hazard conditions. In the portion of the County covered by the Los Angeles County Flood Control District, a very satisfactory relationship has evolved whereby the Flood Control District constructs the major channels and dams shown on its comprehensive Plan for the Control and Conservation of Flood Waters, and the cities and the County administer the local drainage.

In the absence of a flood control district in Antelope Valley in the past years, financing of major channel improvements has been all but impossible. An assessment district was proposed in 1957 for the improvement of the Amargosa Creek, but the proceedings were abandoned because of high anticipated assessments and lack of support.

Improvement of the Amargosa Creek and other major channels by your district, through the avenues of financing available under your act, would represent a significant step toward providing flood protection for this area.

If AVEK can develop a comprehensive plan for the control and conservation of flood waters, and finance, construct and maintain these major drainage facilities, we are sure that arrangements similar to those practiced within the Los Angeles County Flood Control District can be worked out. Coordination of the major drainage between the County and AVEK, with the County administering local drainage, would benefit the citizens of Antelope Valley without costly overlapping jurisdictions and duplication of government functions.

Yours respectfully,

John A. Lambie
COUNTY ENGINEER

JAL:RJR:mh-7

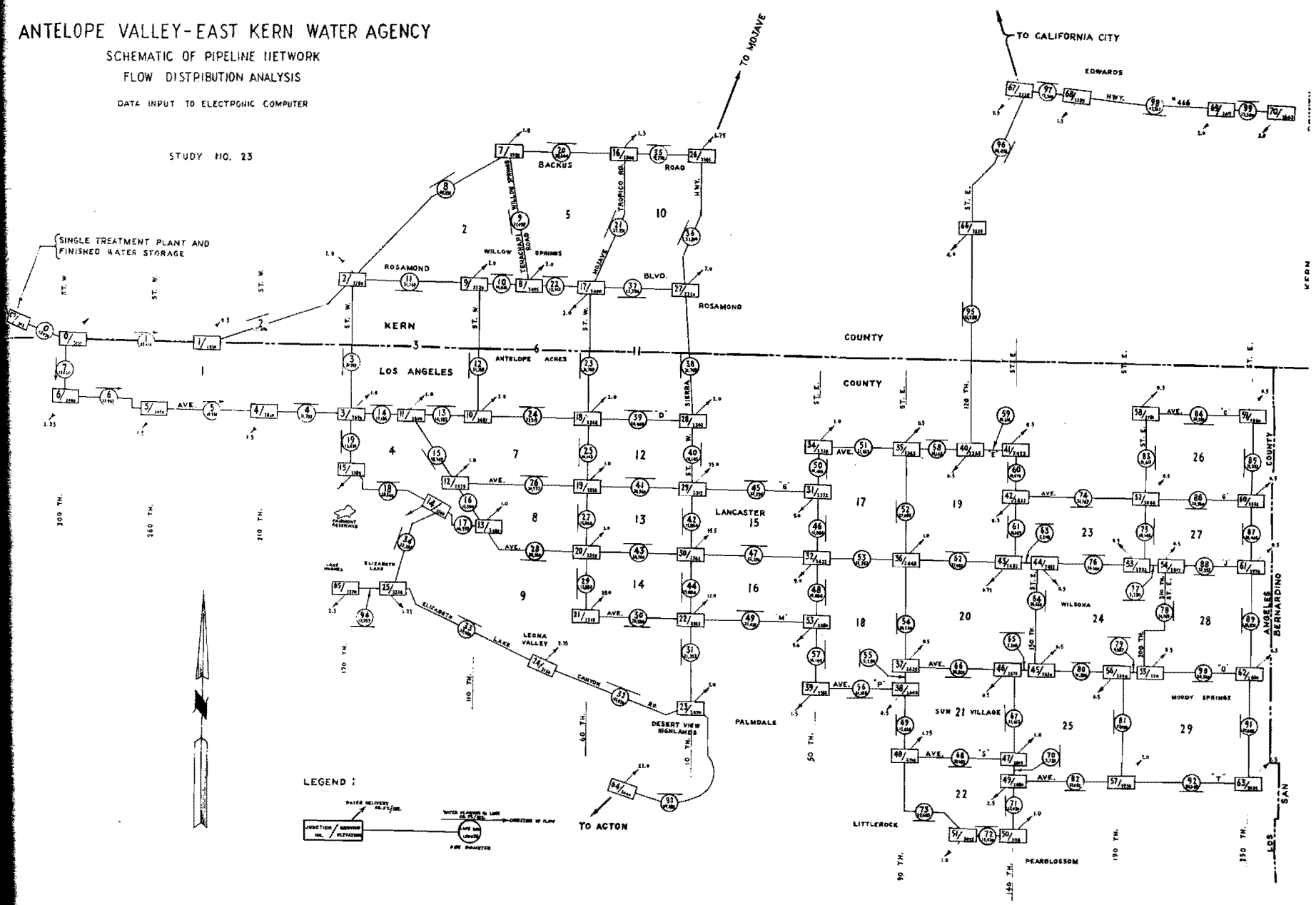
ANTELOPE VALLEY-EAST KERN WATER AGENCY

SCHEMATIC OF PIPELINE NETWORK

FLOW DISTPIBUTION ANALYSIS

DATA INPUT TO ELECTPONIC COMPUTER

STUDY NO. 23



S-131

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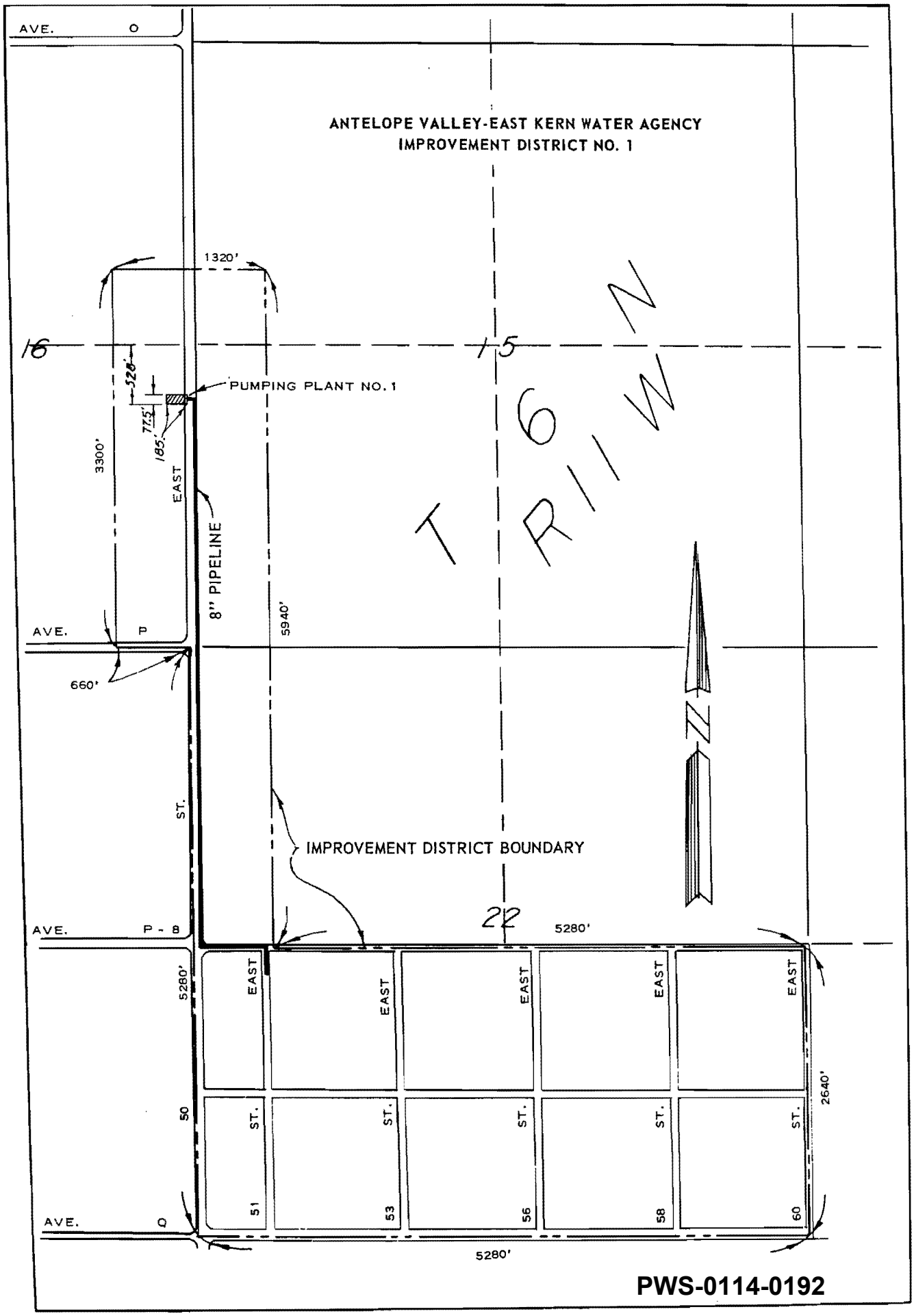


PWS-0114-0192

INDEX OF PEOPLE WHO HAVE APPEARED BEFORE THE COMMITTEE OR WHO HAVE PRESENTED INFORMATION TO THE COMMITTEE OR WHOSE PUBLICATIONS HAVE BEEN REFERRED TO

	DATE	SOURCE *	Page Numbers
Amacker, Dale Monolith Portland Cement Company	Mar. 17, 1964	M -	17, 18, 19, 21, 22, 35, 37, 38, 39
Bartlett, Alan V. Bank of America, S. F.	Jan. 21, 1964	M -	3 to 23, incl.
Banks, Harvey O. to R. B. McNutt - Letter	April 19, 1959	Sy -	12
Banks, Harvey O. from Feather River Project Assoc.	Sept. 6, 1956 - Letter	S -	121
Berg, Mrs. Lila Rosamond Water Co.	Mar. 17, 1964	M -	37
Blakey, Blake V. Vice-Chairman, AVEK Advisory Committee	Aug. 6, 1963	M -	1, 2, 4
	Sept. 17, 1963	M -	2
	Nov. 5, 1963	M -	15, 30, 39, 41
	Nov. 19, 1963	M -	1, 4, 5, 11, 12, 13, 16a
	Dec. 17, 1963	M -	1, 2, 3, 6, 15, 20, 26, 27, 28, 29, 31, 32, 35
	Feb. 18, 1964	M -	2
	Mar. 17, 1964	M -	1, 2, 3, 4, 5, 6, 12, 16, 17, 21, 22, 23, 25, 26, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44

	DATE	SOURCE *	Page Numbers
Blakey, Blake V. Vice-Chairman, AVEK Advisory Committee	Apr. 21, 1964	M -	2, 8, 11, 12
Brooks, Don Metropolitan Water Dist.	Nov. 5, 1963	M -	18, 22, 24
Butler, Warren Metropolitan Water Dist.	Nov. 5, 1963	M -	6, 7, 8, 9, 11, 12, 13, 14, 15, 20, 24
Byers, Robert Citizen, Mojave	Mar. 17, 1964	M - Sy - Bill of Particulars	23, 24, 25, 42 40 11 pages
Carter, Whitford B. Chairman, AVEK Advisory Committee	Aug. 20, 1963	M -	5
	Nov. 5, 1963	M -	8, 9, 12, 13, 14 15, 16, 23, 25, 27, 37, 38, 40, 41
	Spec. Bd. Meeting Nov. 5, 1963	M -	3, 7
	Nov. 19, 1963	M -	1, 3, 6, 10, 11, 13, 14, 15, 16, 17, 18
	Dec. 17, 1963	M	2, 3, 5, 6, 7, 8, 10, 11, 13, 14, 16, 17, 20, 21 28, 30, 33, 35, 36, 37, 38
	Jan. 21, 1964	M -	2, 20, 22, 25
	Jan. 21, 1964 Second Portion	M -	1, 13, 15, 17, 18

	DATE	SOURCE *	Page Numbers
Carter, Whitford B. Chairman, AVEK Advisory Committee	Feb. 18, 1964	M -	1, 4, 18, 19
	Feb. 18, 1964 Second Portion	M -	12, 14, 16
	Apr. 21, 1964	M -	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
Casey, Assemblyman (coauthor Sen. Stiern) House Res. 71, dated Mar. 16, 1964	Apr. 21, 1964 (read and made part of minutes)	M -	3
Christensen, W. R. Bureau of Reclamation San Bernardino	Mar. 17, 1964	M -	26 to 32, incl. 33, 35
	Addition to above minutes		1, 2
Cleary, Elmer Member, AVEK Advisory Committee	Aug. 6, 1963	M -	2
	Nov. 5, 1963	M -	42
	Nov. 5, 1963 Spec. Board Meeting	M -	6, 7
	Dec. 17, 1963	M -	17
	Mar. 17, 1964	M -	11, 12
Cleveland, Larry Mojave Public Utility District	Dec. 17, 1963	M -	21
Cole, Gifford C. Member, AVEK Advisory Committee	Sept. 17, 1963	M -	2, 3

	DATE	SOURCE *	Page Numbers
Cole, Gifford C. Member, Advisory Com.	Dec. 17, 1963	M -	5
	Feb. 18, 1964	M -	16
	Mar. 17, 1964	M -	38, 39
Cooper, Dan AVEK Board Member	Nov. 5, 1963 Special Bd. Meeting	M -	1, 4, 5, 6, 8
	Jan. 21, 1964 Second Portion	M -	16
	Mar. 17, 1964	M -	33
Crooke, Howard W. Sec/Mgr. Orange County Water District	Feb. 18, 1964	M -	4 to 17, incl.
Diffley, W. J. U.S. Borax & Chemical Co.	Mar. 17, 1964	M -	14, 15, 39
Dutcher, Lee C. U. S. Geological Survey Long Beach	Jan. 21, 1964 Second Portion	M -	1 to 18, incl.
	Feb. 18, 1964 Second Portion	M -	1 to 16, incl.
Edmonston, Bob Bookman and Edmonston	Mar. 17, 1964	M -	19, 20, 21
Gillespie, John Boron Community Services	Mar. 17, 1964	M -	36
Godde, Forrest G. AVEK Board Member	Nov. 5, 1963 Spec. Bd. Meeting	M -	6

	DATE	SOURCE *	Page Numbers
Graham, Marcus Member, AVEK Advisory Committee	Aug. 6, 1963	M -	1, 2, 4
	Aug. 20, 1963	M -	4
	Apr. 21, 1964	M -	5, 6, 10
Grigsby, John T. Member, AVEK Advisory Committee	Sept. 17, 1963	M -	2
	Nov. 5, 1963	M -	22, 27
	Nov. 5, 1963 Spec. Bd. Meeting	M -	4, 5, 6
	Nov. 19, 1963	M -	18
	Jan. 21, 1964	M -	19, 20
	Jan. 21, 1964 Second Portion	M -	13, 14, 15
Harlow, Ernest P. Calif. City Community Services	Mar. 17, 1964	M -	37
Hunt, S. Joseph AVEK Board Member	Nov. 5, 1963 Spec. Bd. Meeting	M -	2, 4, 5, 7
	Feb. 18, 1964 Second Portion	M -	15, 16
Jackson, Dorothy Member, AVEK Advisory Committee	Aug. 20, 1963	M -	1
	Nov. 5, 1963	M -	40
	Nov. 5, 1963 Spec. Bd. Meeting	M -	5
	Nov. 19, 1963	M -	5
	Mar. 17, 1964	M -	17, 22, 23, 35, 43
	Apr. 21, 1964	M -	6, 8, 11

	DATE	SOURCE *	Page Numbers
Kenley, Joseph A. Edgemont Mutual Water Co.	Nov. 19, 1963	M -	3, 4, 5, 6, 10, 11, 12, 13, 17
	Mar. 17, 1964	M -	37
Koch, Ed. Mojave Realty Co.	Nov. 19, 1963	M -	6, 7, 8, 9, 10, 17, 18
Kunkel, Fred U.S.G.S. Sacramento	Jan. 21, 1964 (Second Portion (Jan .21, 1964	M - M -	2 1, 15
Levy, H. M.	Jan. 21, 1964	M -	23
	Mar. 17, 1964	M -	43
	Apr. 21, 1964	M -	7
Lunt, Randle G. AVEK Chief Engineer and General Manager	Aug. 6, 1963	M -	2, 4, 5
	Aug. 20, 1963	M -	2, 3, 4
	Aug. 20, 1963	M -	Report, 19 pages
	Aug. 20, 1963 (memo re displacement of San Andreas fault)	M -	2 pages
	Sept. 17, 1963	M -	2
	Sept. 17, 1963 (presented report)	M -	8 pages, plus charts
	Nov. 5, 1963	M -	2, 24, 25
	Dec. 17, 1963 (Reconnaissance Report)	M -	6 to 37,
	Jan. 21, 1964 (Second Portion)	M -	1

	DATE	SOURCE *	Page Numbers
Lunt, Randle G. AVEK Chief Engineer and General Manager	Mar. 17, 1864	M -	25
	Apr. 21, 1964	M -	6
McNutt, R. B. Member, AVEK Advisory Committee	Aug. 6, 1963	M -	1, 2, 3, 5
	Aug. 20, 1963	M -	4
	Nov. 5, 1963	M -	26, 42
	Dec. 17, 1963	M -	1, 6, 31, 33, 37
	Jan. 21, 1964	M -	3
	Feb. 18, 1964	M -	19
	Mar. 17, 1964	M -	40, 41
	Apr. 21, 1964	M -	2, 4, 7, 8, 11, 12, 13
Ogilvie, Dal Kern County Water Agency	Nov. 5, 1963	M -	28 to 40, incl.
Patty, Duncan Member, AVEK Advisory Committee	Mar. 17, 1964	M -	32
	Apr. 21, 1964	M -	7, 10, 13
Pond, Howard Valley Press	Nov. 5, 1963	M -	39
Reed, Curtis Manager Jameson Ranch	Mar. 17, 1964	M -	39
Riley, Jim California City	Nov. 19, 1963	M -	15, 16
	Mar. 17, 1964	M -	35

	DATE	SOURCE *	Page Numbers
Roper, Mrs. Mojave	Nov. 19, 1963	M -	13
Rostron, James T. Waterworks & Utilities Div. County of Los Angeles	Feb. 18, 1964	M -	18, 19 Report, 14 pages, 2 tabulations
Schafer, H. William Member, AVEK Advisory Committee	Aug. 20, 1963	M -	2
	Nov. 5, 1963	M -	38
	Nov. 5, 1963 Spec. Bd. Meeting	M -	7
	Dec. 17, 1963	M -	6, 31
Schwabacher, Philip	Aug. 6, 1963	M -	1, 2, 5
	Nov. 5, 1963	M -	7, 8, 16, 17, 19, 37, 40, 41
	Nov. 5, 1963 Spec. Bd. Meeting	M -	3, 4, 7
	Dec. 17, 1963	M -	1, 3, 5, 11, 12, 13, 14, 20, 29, 31, 33, 35, 38
	Jan. 21, 1964	M -	2, 17, 20
	Feb. 18, 1964 Second Portion	M -	14
	Mar. 17, 1964	M -	7, 12, 13, 14, 16 21, 23, 33, 35, 41, 43
	Apr. 21, 1964	M -	2, 4, 6, 9, 11, 13, 14

	DATE	SOURCE *	Page Numbers
Skelton, Al, President AVEK Board of Directors	Nov. 5, 1963 Spec. Bd. Meeting	M -	2, 3, 4, 6, 7, 8
	Nov. 5, 1963	M -	20
	Nov. 19, 1963	M -	16
	Mar. 17, 1964	M -	41, 42
Skinner, Robert A. Metropolitan Water Dist.	Nov. 5, 1963	M -	3, 4, 5, 9, 10, 11, 14 to 23, incl. 25, 26, 27
Sparling, Dave Mojave Public Utility Dist.	Mar. 17, 1864	M -	36
	Nov. 19, 1963	M -	16, 17
Sturtevant, George H. Pub. Relations Mgr. Am. Potash & Chemical Co. Chairman, Major Taxpayers Com.	Mar. 17, 1964	M -	6 to 12, incl. 16
	Apr. 21, 1964	M -	1, 2
Thomas, Lester L. Desert Lake Community Services	Mar. 17, 1964	M -	37
Ulrich, Bob Mojave	Nov. 19, 1963	M -	14, 15
	Jan. 21, 1964	M -	22
Voice (undetermined) from audience	Jan. 21, 1964 Second Portion	M -	11, 12, 16, 17
	Feb. 18, 1964	M -	18
	Feb. 18, 1964 Second Portion	M -	9
	Mar. 17, 1964	M -	35, 42

	DATE	SOURCE *	Page Numbers
Waugh, Sanford A. Legal Counsel, AVEK	Nov. 5, 1963 Spec. Bd. Meeting	M -	5
Weir, James E. U.S.G.S. Long Beach	Jan. 21, 1964 Second Portion	M -	14
Williams, Ruel AVEK Board Member	Nov. 5, 1963 Spec. Bd. Meeting	M -	6, 8
	Nov. 19, 1963	M -	5, 7, 8, 9, 14 15, 17, 18
	Feb. 18, 1964	M -	16, 17
	Feb. 18, 1964 Second Portion	M -	15
	April 21, 1964	M -	11

* M - Minutes
Sy- Syllabus - July 1964
S - Supplement to Syllabus

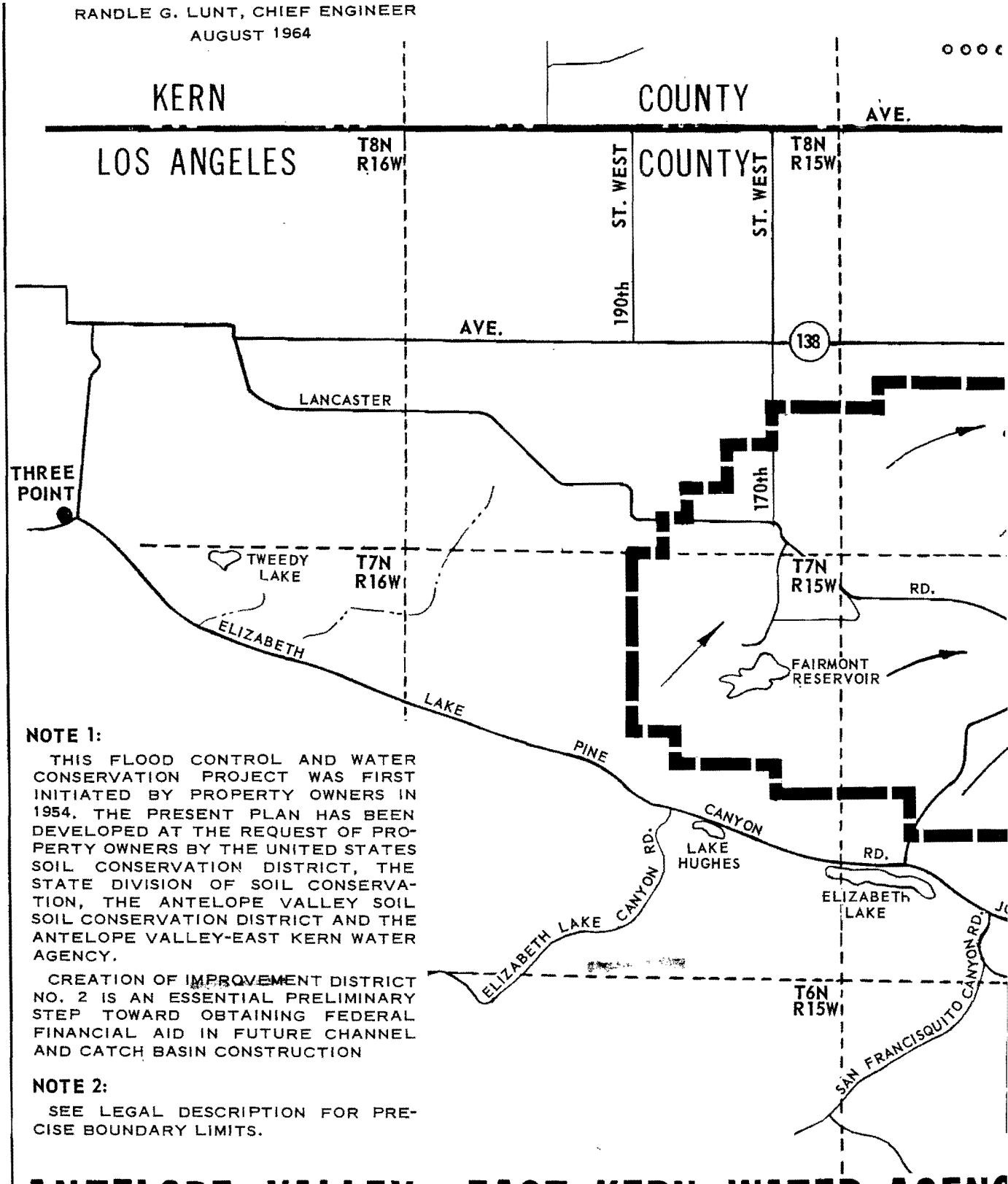
ADDENDA TO
INDEX OF PEOPLE WHO HAVE APPEARED BEFORE
THE COMMITTEE OR WHO HAVE PRESENTED
INFORMATION TO THE COMMITTEE OR WHOSE
PUBLICATIONS HAVE BEEN REFERRED TO

	DATE	SOURCE *	Page Numbers
Assembly Interim Committee on Water	Dec. 1962	Report S -	S-6 to S-22, incl.
Antelope Valley Feather River Progress Assn. Del L. Falls, Pres. Murray D. Pond, Sec'y. to Harvey O. Banks, Dir. of Water Resources	Sept. 6, 1956	letter S -	S-121 to S-123 incl.
Balluff, John J. General Attorney, California	May 14, 1963	letter S -	S-67 to S-70
Banks, Harvey O. Director Dept. of Water Resources to H. B. McNutt, Pres. Antelope Valley-East Kern Water Basin Assn.	Apr. 19, 1959	letter Sy -	Sy-12, Sy-13
Breivogel, Milton Regional Planning Commission County of Los Angeles to Warren Dorn, Supervisor Fifth District	June 29, 1964	letter S -	S-125, S-126, S-127
Cordell, Eursell, Soil Conservationist U. S. Dept. of Agriculture to W. B. Carter, Chairman Advisory Committee	July 7, 1964	letter S -	S-93
Cordell, Eursell, Soil Conservationist to W. B. Carter, Chairman	July 16, 1964	letter S -	S-96, S-97
Davis, J. Carl Acting Area Engineer U. S. Bureau of Reclamation to Randle Lunt, General Manager, Chief Engineer, AVEK	May 7, 1964	letter Sy -	Sy-27, Sy-28

	DATE	SOURCE *	Page Numbers
Edmonston, R. M. Bookman & Edmonston to Major Taxpayers Committee, Attn. Geo. H. Sturtevant, Chairman	Dec. 24, 1963	report S -	S-71 to S-77, incl.
Krueger, Raymond H., Pres. Portal Ridge Watershed Action Committee to Warren M. Dorn, Supr. Fifth District	June 11, 1964	letter S -	S-124
Lambie, John A. County Engineer, County of Los Angeles to Bd. of Directors, Antelope Valley-East Kern Water Agency	July 10, 1964	letter S -	S-128
Lunt, Randle G. Gen. Mgr. & Ch. Engineer, Antelope Valley-East Kern Water Agency to Walter W. Stiern, Senator	May 29, 1963	letter S -	S-61
Lunt, Randle G. Gen. Mgr. & Ch. Engineer Antelope Valley-East Kern Water Agency to Al E. Skelton, President Antelope Valley-East Kern Water Agency	May 18, 1964	letter S -	S-85
Price, Wm. P. Jr. Gen. Mgr.and Chief Engineer United Water Conservation District to W. B. Carter, Chairman Advisory Committee	June 19, 1964	letter S -	S-118 to S-120, incl.
Resolution of Antelope Valley-East Kern Water Agency Board of Directors	May 28, 1963	resolution S - Sy -	S-63, S-64 Sy-1

	DATE	SOURCE *	Page Numbers
Stiern, Walter W. Senator, 39th District to Al E. Skelton, President Board of Directors, AVEK	June 3, 1963	letter Sy -	Sy-4
Skelton, Al E., Pres. Antelope Valley-East Kern Water Agency to Walter E. Stiern, Senator, 39th District	May 22, 1963	letter S -	S-43 to S-54, Incl.
Waugh, Sanford A. Legal Counsel, AVEK to W. B. Carter, Chairman Advisory Committee	July 10, 1964	letter Sy -	Sy-35, Sy-36

RANDLE G. LUNT, CHIEF ENGINEER
AUGUST 1964



NOTE 1:

THIS FLOOD CONTROL AND WATER CONSERVATION PROJECT WAS FIRST INITIATED BY PROPERTY OWNERS IN 1954. THE PRESENT PLAN HAS BEEN DEVELOPED AT THE REQUEST OF PROPERTY OWNERS BY THE UNITED STATES SOIL CONSERVATION DISTRICT, THE STATE DIVISION OF SOIL CONSERVATION, THE ANTELOPE VALLEY SOIL SOIL CONSERVATION DISTRICT AND THE ANTELOPE VALLEY-EAST KERN WATER AGENCY.

CREATION OF IMPROVEMENT DISTRICT NO. 2 IS AN ESSENTIAL PRELIMINARY STEP TOWARD OBTAINING FEDERAL FINANCIAL AID IN FUTURE CHANNEL AND CATCH BASIN CONSTRUCTION

NOTE 2:

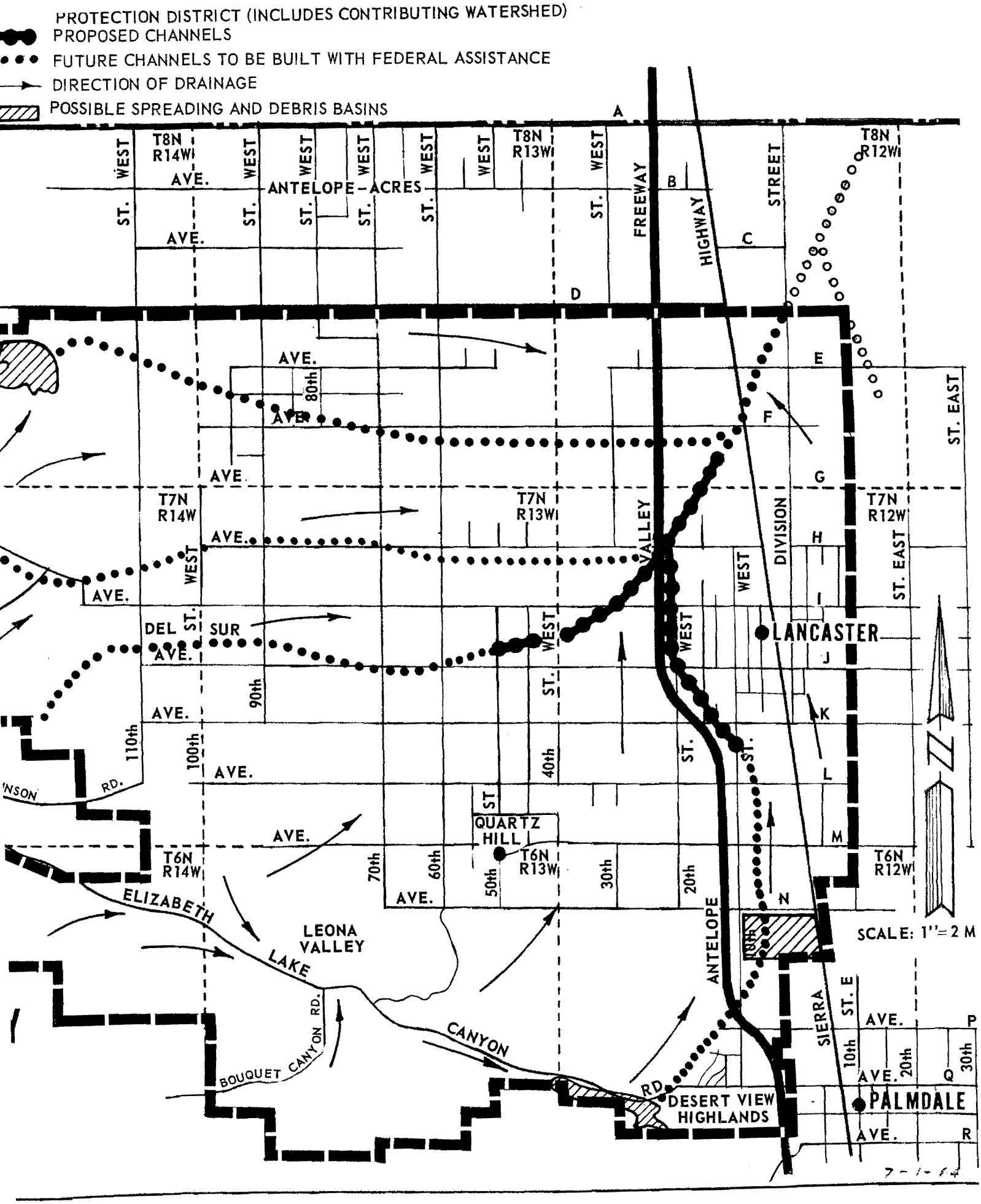
SEE LEGAL DESCRIPTION FOR PRECISE BOUNDARY LIMITS.

ANTELOPE VALLEY - EAST KERN WATER AGENC

IMPROVEMENT DISTRICT NO. 2

WATER CONSERVATION AND FLOOD PROTECTION PROJECT

PWS-0114-0206



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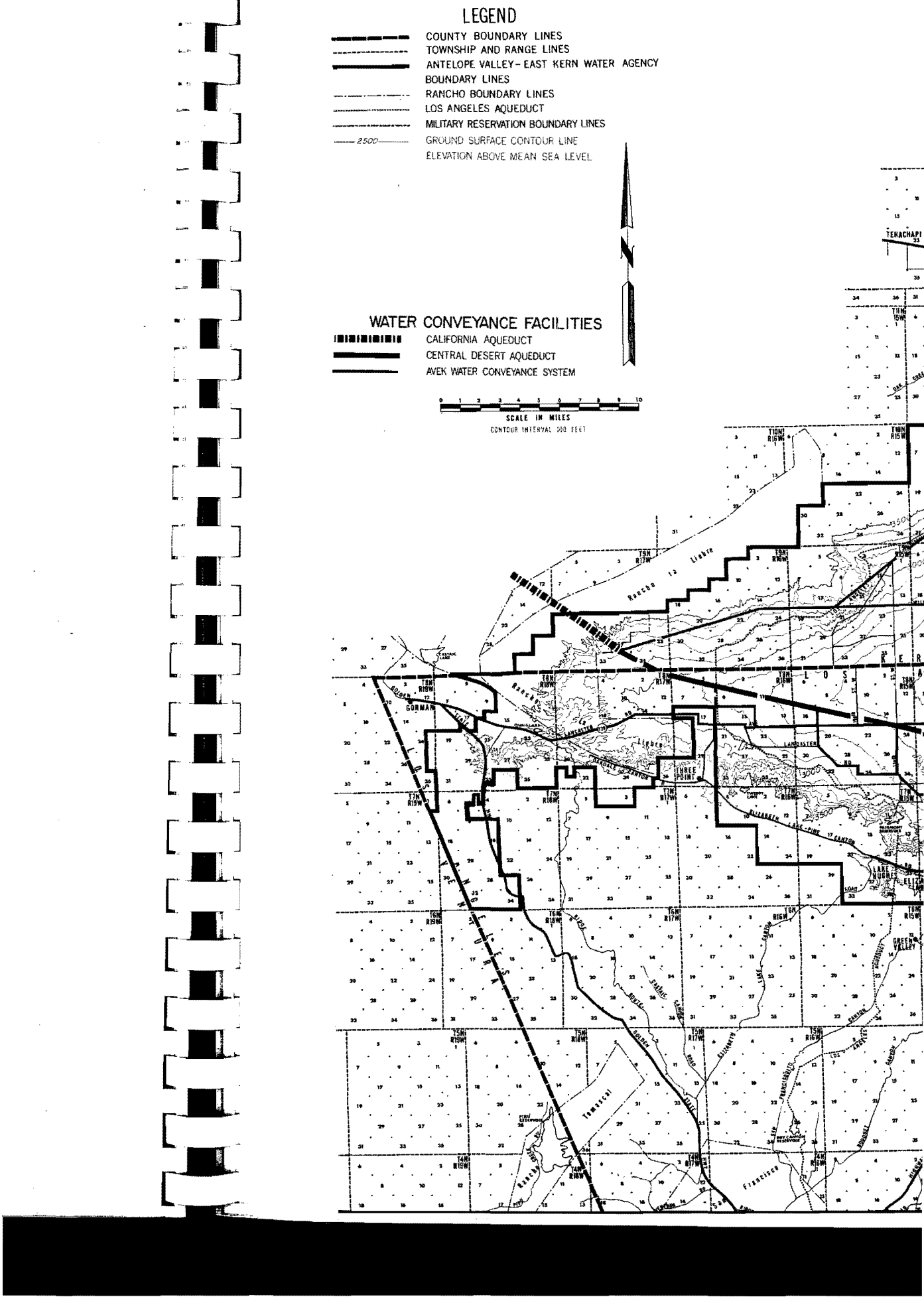

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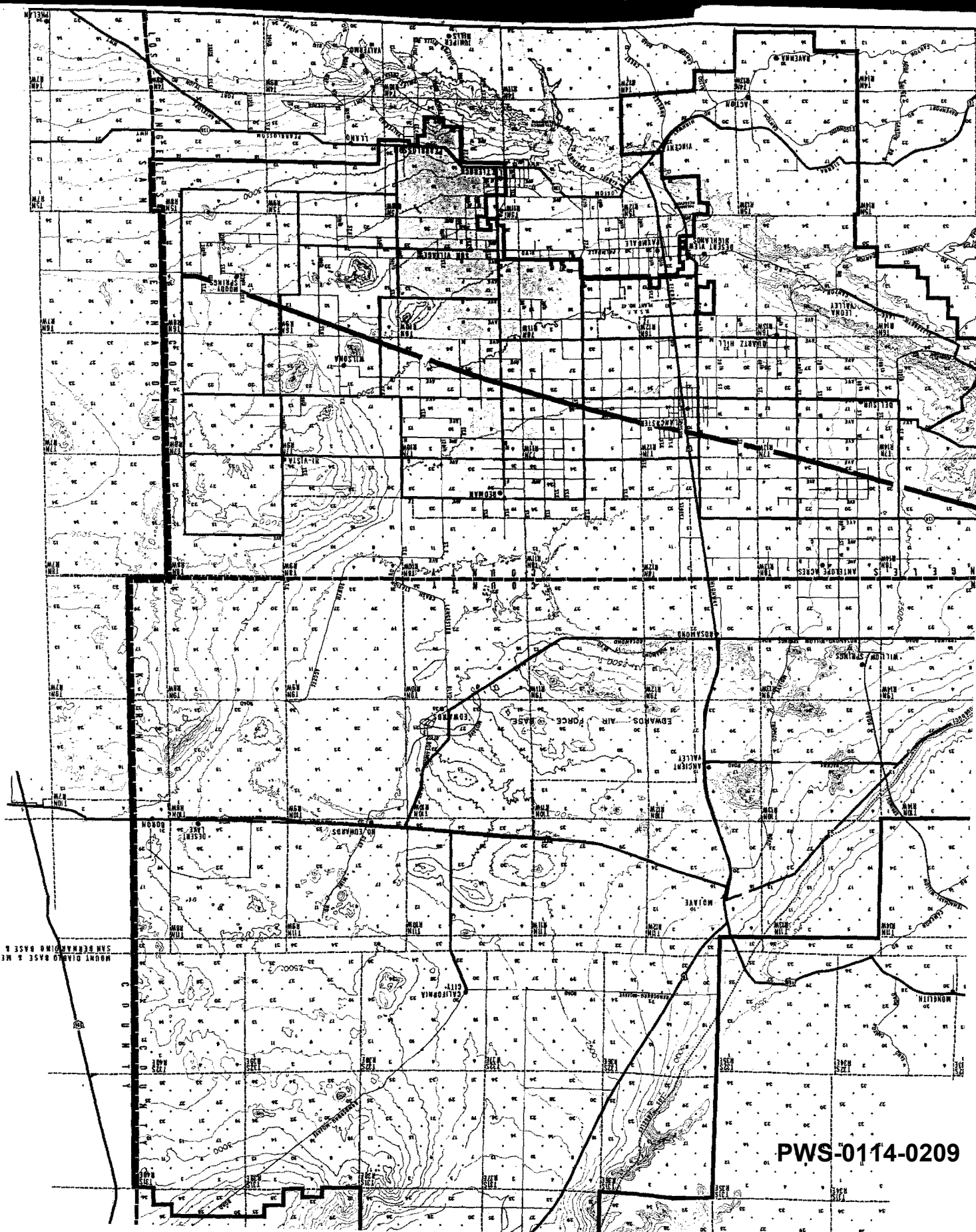
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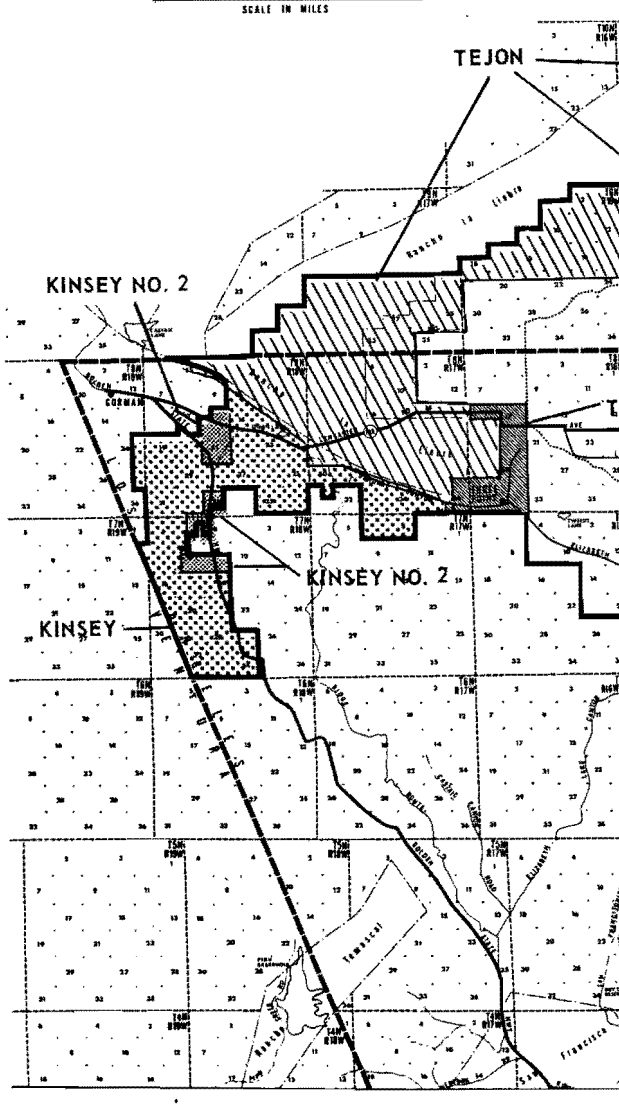
WATER AGENCY

LEGEND

- COUNTY BOUNDARY LINES
- TOWNSHIP AND RANGE LINES
- ANTELOPE VALLEY-EAST KERN WATER AGENCY BOUNDARY LINES
- RANCHO BOUNDARY LINES
- LOS ANGELES AQUEDUCT
- MILITARY RESERVATION BOUNDARY LINES

SCALE IN MILES



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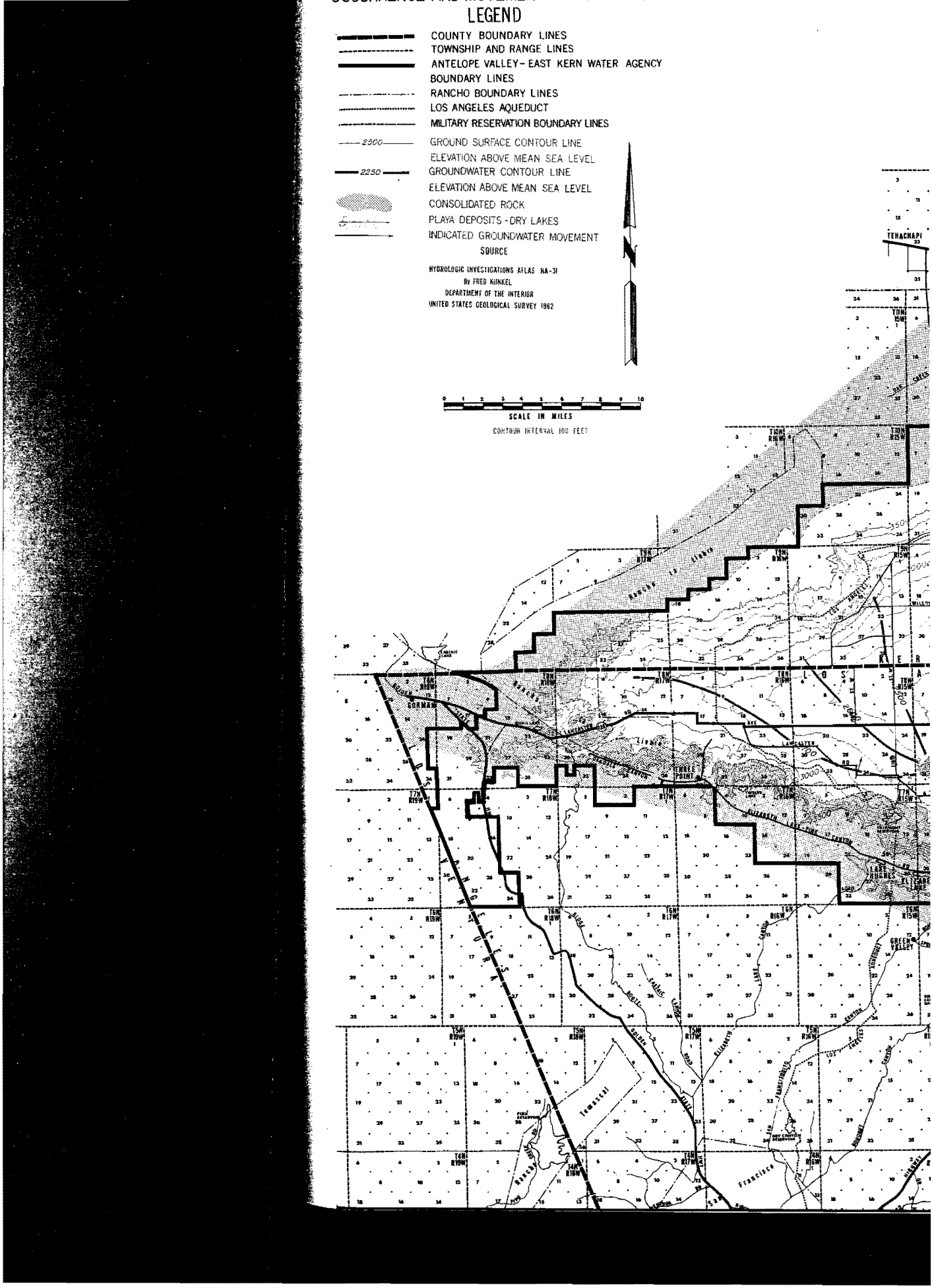

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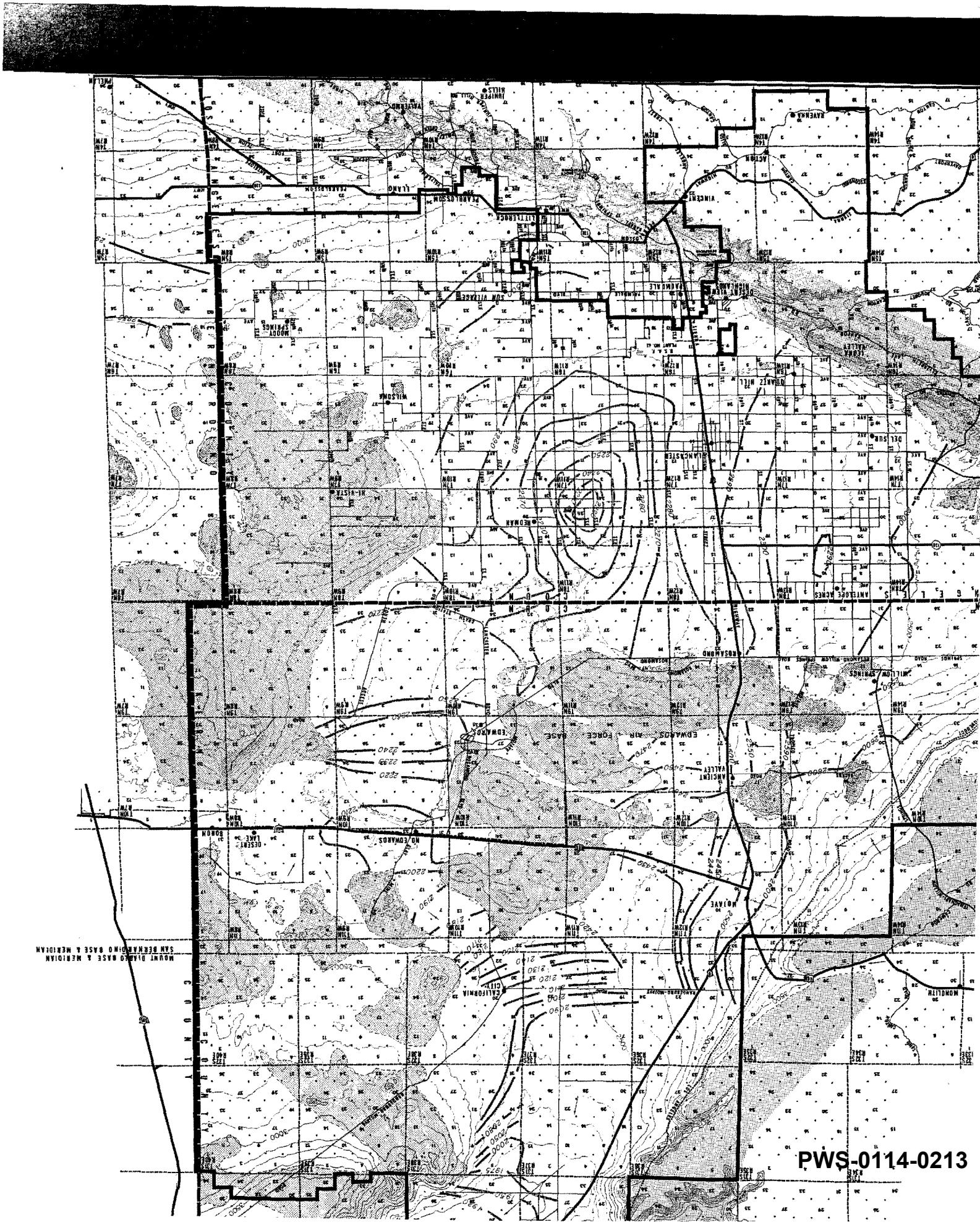

SAN BERNARDINO BASE & MERIDIAN
MOUNT DIABLO BASE & MERIDIAN
PWS-0114-0213

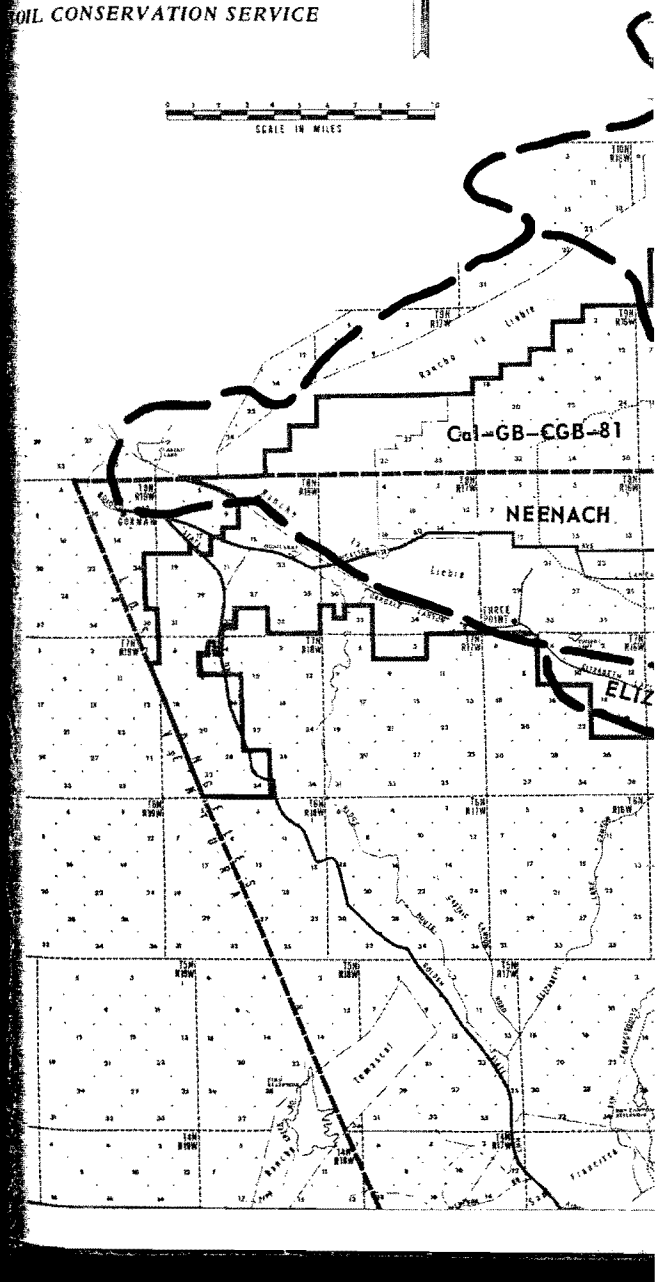
WATER AGENCY

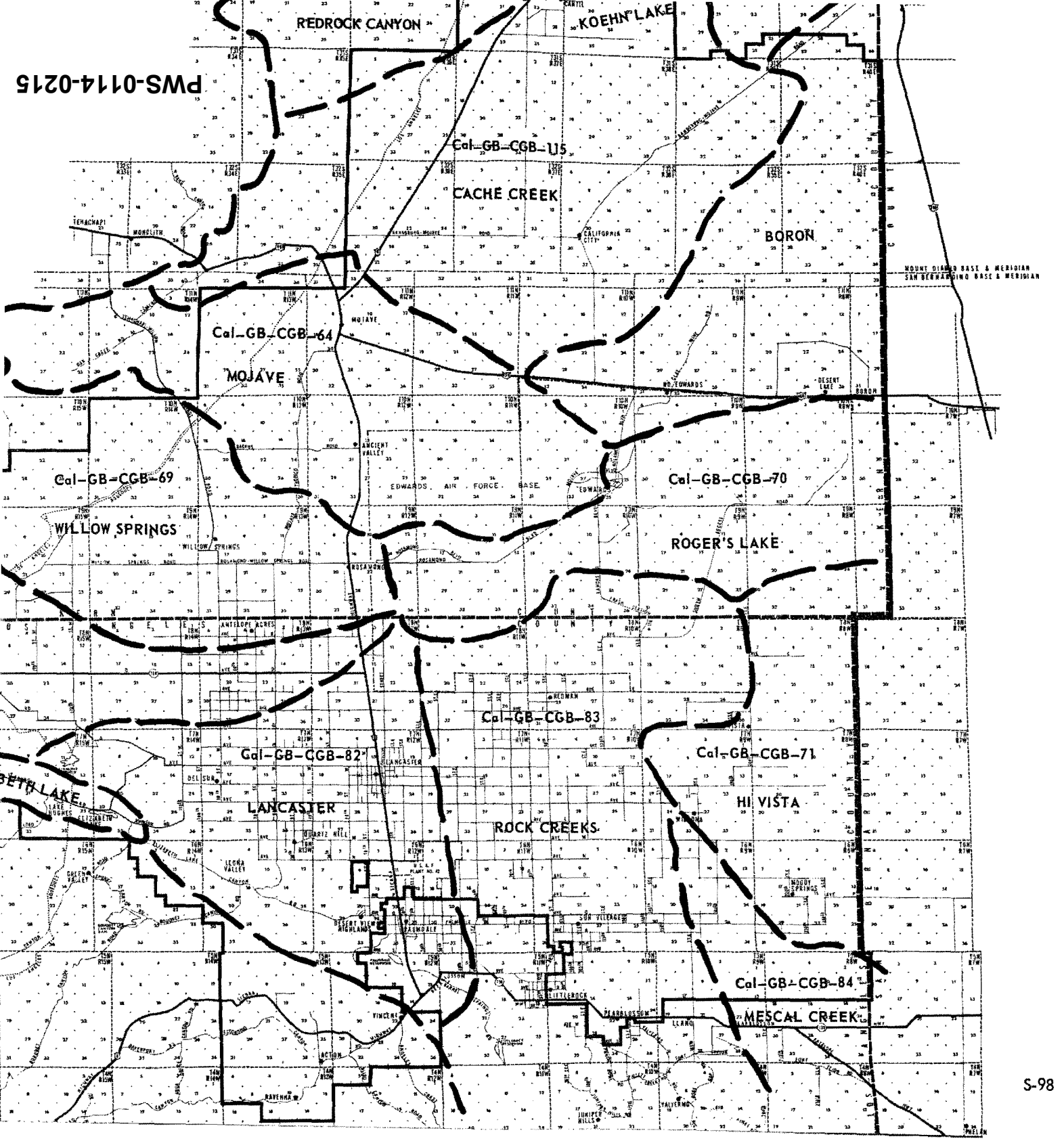
LEGEND

- COUNTY BOUNDARY LINES
- TOWNSHIP AND RANGE LINES
- ANTELOPE VALLEY - EAST KERN WATER AGENCY BOUNDARY LINES
- RANCHO BOUNDARY LINES
- LOS ANGELES AQUEDUCT
- MILITARY RESERVATION BOUNDARY LINES

WATERSHED PLANNING UNITS

NUMBER DESIGNATIONS ASSIGNED BY SOIL CONSERVATION SERVICE




REDROCK CANYON
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CACHE CREEK
BORON
MOUNT DIABLO BASE & MERIDIAN
SAN BERNARDINO BASE & MERIDIAN
Cal-GB-CGB-64
MOJAVE
Cal-GB-CGB-69
EDWARDS AIR FORCE BASE
Cal-GB-CGB-70
WILLOW SPRINGS
ROGER'S LAKE
Cal-GB-CGB-83
Cal-GB-CGB-82
Cal-GB-CGB-71
LANCASTER
HI VISTA
ROCK CREEKS
Cal-GB-CGB-84
MESCAL CREEK