

BEFORE THE BOARD OF DIRECTORS OF
THE NORTH KERN WATER STORAGE DISTRICT
ON BEHALF OF ITSELF AND
ROSEDALE RANCH IMPROVEMENT DISTRICT

IN THE MATTER OF:

RESOLUTION NO. 93-92

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
NORTH KERN WATER STORAGE DISTRICT
TO ADOPT A GROUNDWATER MANAGEMENT PROGRAM PURSUANT TO
PART 2.5 OF DIVISION 6 OF THE CALIFORNIA WATER CODE

WHEREAS, pursuant to Resolution No. 93-73, adopted August 17, 1993, this Board set the date of a public hearing pursuant to Water Code section 10753 to consider a proposed groundwater management program;

WHEREAS, as prescribed by Water Code section 10753, the Board provided notice of that hearing on the question of adopting a groundwater management program; and

WHEREAS, on October 18, 1993, as prescribed by the above-referenced notice, this Board of Directors conducted a hearing on the proposed groundwater management program; and

WHEREAS, no written protest to adoption of the plan has been filed; and

WHEREAS, having fully considered all testimony received at the hearing, this Board finds that it is in the best interest of the District and its landowners to adopt a resolution to implement the District Groundwater Management Program.

NOW, THEREFORE, BE IT RESOLVED, by this Board of Directors acting for and on behalf of North Kern Water Storage District and its Rosedale Ranch Improvement District that said Board declares the adoption of the attached District Groundwater Management Program attached hereto;

BE IT FURTHER RESOLVED, that the Engineer-Manager is directed to provide copies of the adopted District Groundwater Management Program to any interested persons who may request a copy of said program.

ALL THE FOREGOING, being on motion of Director Fanucchi, and seconded by Director Andrew, was authorized by the following vote:

AYES: Directors Andrew, Castle, Fanucchi, Wilkendorf
and Hall
NOES: None
ABSENT: None
ABSTAIN: None

I HEREBY CERTIFY that the foregoing is the resolution of said District as duly passed and adopted by said Board of Directors on this 19th day of October 1993.

WITNESS my hand and seal of said Board of Directors this 19th day of October 1993.


Secretary of the Board of Directors



SECOND PUBLIC HEARING ON ADOPTION OF THE
GROUNDWATER MANAGEMENT PLAN FOR
NORTH KERN WATER STORAGE DISTRICT AND
ROSEDALE RANCH IMPROVEMENT DISTRICT

October 19, 1993

MILO HALL:

It is now 10:30 a.m., and this is the time and place for the second of two hearings on the adoption of the groundwater management program pursuant to AB 255 for North Kern Water Storage District and Rosedale Ranch Improvement District. So that a record may be kept, this hearing is being recorded. This hearing was noticed by publication in the *Bakersfield Californian* and by letter to each landowner/groundwater pumper in the District.

First, I would like to call on the District's Consulting Engineer, Ron Eid, to provide a brief summary of this program. Ron . . .

RON EID:

I'll make this summary fairly brief and it will consist of parts of the plan which were mailed out to all landowners, owners of wells within the District. So if you'll bear with me and then we'll be available for any questions. The District desires to formalize its existing Groundwater Management Program primarily to help assure the longstanding practice of local management. In addition the District intends to coordinate its activities with those of its neighbors and to review and enhance its existing monitoring activities so as to position itself to identify and implement modifications to its ongoing program as may be required to preserve and enhance its groundwater resource for the benefit of its landowners. Simply and physically the District's objective is to preserve the utility of the groundwater resource both in terms of quantity and quality. The District can be considered to be comprised of three distinct areas, two of which are designated as management areas. The first management area consists of the original North Kern District. The second, the Rosedale Ranch Improvement District and then the third area not considered as a, or designated a management area, are all those other lands for which a formal District project is not adopted, primarily consisting of lands bracketing the District's conveyance facilities and portions of the Kern River that are outside of the original North Kern and Rosedale Ranch areas.

Under the program the District will seek to preserve and protect the water rights and contracts respecting its existing surface water supplies that are fundamental to the District's overall conjunctive use and water management program. Further, the District will pursue opportunities to supplement these supplies. Additional opportunities could include the purchase of Kern River and/or other supplies primarily in above average years, increasing the District's ability to import water during the wetter years, expanding

the District's existing irrigation distribution system facilities and purchase of additional water supplies on a long term basis if and when available.

Respecting Rosedale Ranch, with an irrigation distribution system in place capable of serving a full supply when available to developed lands and with the Improvement District empowered to purchase water supplies as available, Rosedale Ranch is positioned to take advantage of the wetter years by purchasing and distributing surface supplies reducing groundwater pumping by a like amount and thereby preserving the groundwater resource and this wet year practice remains the foundation Rosedale Ranch management program.

The District, again referring to the original North Kern District, will make every effort to preserve the presently available direct recharge capabilities, and will consider enhancement of the capabilities of existing facilities as well as the development of additional facilities. Delivery of surface water in lieu of groundwater pumping will continue, limited by the availability of surface water and distribution facilities. In this regard the District will continue its present practice of encouraging the construction of distribution system facilities to lands which rely exclusively on pumped groundwater.

Respecting Rosedale Ranch, direct replenishment of underlying groundwater, as we discussed earlier this morning increases incidental percolation from the unlined canals which are used to deliver the surface water. The groundwater basin characteristics make this type of, this seepage effective in terms of recharge of the underground and the conveyance and distribution of canals remain online for this reason. The primary means of replenishment however is the delivery of surface water as available in lieu of groundwater pumping, certainly that's the first priority. Also, as indicated also this morning the recharge through seepage of the canal system is also significant. The District again will seek to preserve and enhance its extensive conjunctive use facilities and activities. Enhancement of conjunctive use activities could include the development of groundwater banking arrangements with other agencies which could realize the temporary storage of water and available groundwater storage capacity underlying the District. Such an arrangement could be affected through direct and/or in lieu groundwater replenishment means.

Respecting management of groundwater extractions, effective management involves both the water supply to the basin and the extractions from that basin. Extraction fees and extraction regulations are not being proposed at this time as part of this program. It is believed that indirect economic inducements such as pricing water at lower rates in time of abundant supply and higher rates during dry years when withdrawals must be made from groundwater storage are sufficient and consistent with this conjunctive use program. Monitoring is a key element of the District's program for optimal use of the groundwater and is dependant upon good basic data respecting both the geology of the underground and the hydrology. Monitoring will include water levels, water quality and assessment of total water supply and disposal for the District. Analysis of these data will be a continuation of the District's existing monitoring and enhancements as required to allow the District to measure the accomplishments of the District's groundwater management and overall management program. Institutionally, the District upon adoption of the water

management plan would be granted certain powers, many of which its has available to it, some of which are already exercised as a water storage district.

Finally, with respect to the relationship between the District and its neighbors, the District and its neighbors share a common groundwater resource and for this reason the District has encouraged and will continue to encourage and facilitate importation of available surface water supplies to these neighboring areas as a direct and obvious benefit to the District and as much as the resource is common.

That's very briefly taking excerpts from the plan. And that's all I have to report on by way of a summary of the plan.

MILO HALL:

Thank you Ron, now I would like to call on Ernest Conant who is the District Counsel to review the procedures respecting adoption of the Groundwater Management Program. Ernest . . .

ERNEST CONANT:

Thank you Milo. As mentioned, this is the second of two public hearings. The purpose of this hearing is to receive comments and questions from District landowners and any other interested persons. Copies of the Groundwater Management Plan have been circulated to each owner the wells within the District and to this end I present an Affidavit of Mailing evidencing that the plan was mailed to each landowner and attached to it is a mailing list. Also I present an Affidavit of Publication showing that, although not required under the Code, notice of this hearing was provided by publication in the *Bakersfield Californian*. After the hearing today the Board will consider any written protests that are received to the implementation of this program and at this point we have received no written protests. If for some reason the Board finds that a majority protest exists, that is more than fifty percent of the assessed value of the land within the District objects to adoption of the program, then we are to abandon that effort. If a majority does not exist then the Board may, within 35 days after conclusion of this hearing, adopt a resolution to implement the program. This summarizes the adoption process.

MILO HALL:

At this point this hearing is open to public comment and questions, and if you wish to speak please state your name, your interest as a landowner, representative of a landowner, and whether you wish to reply to the original North Kern Project area or within the Rosedale Ranch Improvement District or both. At this time I entertain any public comments or statements, anyone care to make? John . . .

JOHN JONES:

Okay, I'm John Jones, Manager of the Cawelo Water District. I have two questions. Does your groundwater plan have a boundary?

ANNE KOOP:

Director Hall.

DIRECTOR HALL:

Aye.

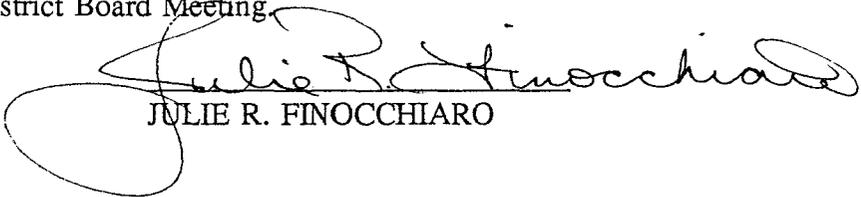
MILO HALL:

The order and motion passed, the resolution is passed.

CERTIFICATION:

I certify that the foregoing is an accurate transcription of a tape made during the October 19, 1993, North Kern Water Storage District Board Meeting.

DATED: November 1, 1993


JULIE R. FINOCCHIARO

**NORTH KERN WATER STORAGE DISTRICT
AND
ROSEDALE RANCH IMPROVEMENT DISTRICT

KERN COUNTY, CALIFORNIA**

**ORGANIZATION OF EXISTING
GROUNDWATER MANAGEMENT PROGRAM
UNDER CALIFORNIA WATER CODE
SECTIONS 10750 ET SEQ.
(AB-255)**

**Bookman-Edmonston Engineering, Inc.
Bakersfield, California
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TABLE OF CONTENTS

	<u>Page</u>
MANAGEMENT AREAS	1
PROGRAM ELEMENTS	2
SURFACE WATER SUPPLY	2
THE DISTRICT	2
ROSEDALE RANCH	3
GROUNDWATER BASIN CHARACTERISTICS	3
GROUNDWATER REPLENISHMENT	4
THE DISTRICT	4
ROSEDALE RANCH	4
CONJUNCTIVE USE OF SURFACE WATER AND GROUNDWATER	5
THE DISTRICT	5
ROSEDALE RANCH	5
MANAGEMENT OF GROUNDWATER EXTRACTIONS	6
THE DISTRICT	6
ROSEDALE RANCH	6
MONITORING	6
WATER LEVELS	7
WATER QUALITY	7
WATER SUPPLY AND DISPOSAL	8
ANALYSIS	8
INSTITUTIONAL CONSIDERATIONS	8
CONSERVATION	10
RELATIONSHIP TO NEIGHBORS	11

**NORTH KERN WATER STORAGE DISTRICT
AND ROSEDALE RANCH IMPROVEMENT DISTRICT
GROUNDWATER MANAGEMENT PROGRAM**

The North Kern Water Storage District (District) founded its project on management of the available water resources, including both surface water and groundwater. The District desires to "formalize" its existing groundwater management program, primarily to help assure the long-standing practice of local management. In addition, the District intends to coordinate its activities with those of its neighbors and to review and enhance its existing monitoring activities so as to position itself to identify and implement modifications to its ongoing program that may be required to preserve and enhance the groundwater resource for the benefit of its landowners. After considering the available legislation, the District proposes to organize its existing groundwater management Program under provisions of California Water Code 10750 et seq., which were added through enactment of AB-255 and became effective January 1, 1992. The District took its first step toward this end on December 15, 1992 with adoption of Resolution No. 92-110.

Preservation and enhancement of the groundwater resource is vital to sustaining the local economies which have been built up in reliance, in whole or in part, on this resource. Physically, the District's objective is to preserve the utility of the groundwater resource, both in terms of quantity and quality. Further, enhancement or augmentation of the resource is necessary to mitigate the present level of overdraft in the overall groundwater basin and the attendant long-term decline in groundwater levels. Economically, the District's objective is to accomplish the stated physical objectives at least cost.

MANAGEMENT AREAS

The District can be considered to be comprised of three distinct areas, two of which are designated as management areas. The first management area is the original District area; that portion of North Kern lying north of Seventh Standard Road (about 60,000 gross acres). The second management area is adjacent to the first and lies immediately south of Seventh Standard Road and is known as the Rosedale Ranch Improvement District (about 12,000 gross acres). The District also includes lands, principally lying in narrow bands along the Kern River, Beardsley Canal, and Calloway Canal, for which a formal project was never adopted, and which are not included in the original District area or in the Rosedale Ranch Improvement District. These lands are not addressed herein inasmuch as there are essentially no consumptive uses of water. All references to the 'District' are references to the original area, and Rosedale Ranch Improvement District is referred to hereinafter as Rosedale Ranch.

While the District management area and the Rosedale Ranch management area share the same underlying groundwater resource, and it is proper that they be discussed in this same report, the management programs have been distinguished because the two projects are separate and distinct. In particular, the two areas do not share the same surface water supplies in terms of water rights and contracts for water supplies. Accordingly, where appropriate in the subsequent sections of this report, separate mention is made of each management area and program.

The previously cited provisions of the California Water Code provide for the development of a management program not only within the boundaries of any agency, but also beyond these boundaries if the water supplies within the agency are impacted by conditions in these neighboring areas. This situation applies to the District, in that the underlying groundwater basin is part of the larger San Joaquin Valley basin. It must be recognized that agreement with these agencies is required (under the same provisions of the Water Code) to manage groundwater in these neighboring areas.

PROGRAM ELEMENTS

The objectives of the Groundwater Management Program are to preserve and maximize the utility of the groundwater resource through conjunctive use with available surface water, all with the view of obtaining an adequate water supply of satisfactory quality at the least possible cost. Program elements have been formulated to achieve the objectives and are presented in the sections which follow. Necessarily, the subsequent discussion includes a description of management activities which are presently in place.

SURFACE WATER SUPPLY

Groundwater management within the District, as in most of California, is rooted in the conjunctive use of surface water and groundwater resources. Simply, water supplies from the two sources are integrated to accomplish the optimum utilization of each.

The District

The District's principal source of surface water is local Kern River water, available through water right holdings and contractual arrangements. This supply has been supplemented from time to time by water from Poso Creek, which traverses the north portion of the District and contributes to the underlying groundwater supply. The District landowners have conjunctively utilized Kern River waters with groundwater since the widespread development of deep water wells in the 1940s. In 1950, District landowners approved implementation of a project, including the construction of physical works, which was predicated on the conjunctive use of available surface supplies with the underlying groundwater resource. The District operates an extensive system of conveyance and distribution facilities throughout its service area to make use of the surface supplies as available.

Under the subject Program, the District will seek to preserve and protect the water rights and contracts respecting its existing surface water supplies. Further, the District will pursue opportunities to supplement these supplies. Additional opportunities could include the purchase of Kern River and/or other supplies, primarily in the above-average years, increasing the District's ability to import water during the wetter years, expanding the District's existing irrigation distribution system facilities, and purchase of additional water supplies on a permanent or long-term basis, if and when available.

Rosedale Ranch

The area included within Rosedale Ranch was developed to irrigated agriculture with pumped groundwater and was annexed to the District without surface water supplies. However, an irrigation distribution system was constructed to serve all developed lands and, in 1980, the Improvement District was organized with one of the stated objectives being to contract for or otherwise acquire water supplies to be distributed to Rosedale Ranch lands for direct irrigation use or to be used for groundwater replenishment. While groundwater remains the principal source of water for meeting irrigation demands, this is supplemented with surface water which is purchased from time to time on an as-available basis. The principal source of surface water has been the Kern River during some of the wetter years. With an irrigation distribution system capable of serving a full supply (when available) to developed lands, and with the Improvement District empowered to purchase water supplies as available, Rosedale Ranch is positioned to take advantage of the wetter years by purchasing and distributing surface supplies, reducing groundwater pumping by a like amount, and thereby preserving the groundwater resource. This wet-year practice remains the foundation of the Rosedale Ranch Management Program.

GROUNDWATER BASIN CHARACTERISTICS

The physical characteristics of the groundwater basin substantially shape the Groundwater Management Program. In particular, the manner in which groundwater is replenished is directly affected by basin characteristics, such as the confined or unconfined occurrence of the groundwater, and the permeability of the overlying soils. Many areas in the San Joaquin Valley are largely underlain by the so-called Corcoran Clay, which separates a generally unconfined aquifer system above and a confined aquifer system below. However, the District and Rosedale Ranch are believed to be largely free of this regional confiner. While many interpretations exist, the Corcoran Clay is believed to be generally west of the District, with groundwater occurring in an unconfined to semiconfined state throughout much of the District and Rosedale Ranch. Accordingly, groundwater replenishment by percolation is effective and has been a significant aspect of the District's management Program for 40 years, both in terms of direct groundwater replenishment and that which is incidental to its operations. Replenishment of the groundwater resource is more particularly discussed in the section following.

GROUNDWATER REPLENISHMENT

Direct replenishment of groundwater underlying the District occurs naturally and through deliberate, controlled means (artificial). The benefits of groundwater replenishment are also achieved indirectly through the delivery of surface water, when available, to those lands otherwise relying exclusively on the groundwater resource (also referred to as in-lieu recharge, i.e., delivery of surface water in lieu of groundwater pumping).

The District

The District has used a variety of means to accomplish artificial recharge within its area. These have included the intentional percolation of local Kern River water in natural channels, constructed basins, unlined constructed channels, and incidental percolation from unlined channels and canals utilized in the conveyance of water for surface delivery and use. The importation of Kern River water to the area has been ongoing for more than 100 years. However, over the last 40 years, since construction of the District's original project works was completed, importation of Kern River water has totalled more than five million acre-feet for both surface delivery and groundwater replenishment activities. Additionally, irrigation water not consumed by evapo-transpiration of cropped lands returns to the underlying groundwater. All water which returns to the underlying groundwater basin, regardless of the return mechanism, is recoverable.

Under the Management Program, the District will make every effort to preserve the presently available direct recharge capabilities, and will consider enhancement of the capabilities of existing facilities as well as the development of additional facilities. Delivery of surface water in lieu of groundwater pumping will continue, limited by the availability of surface water and distribution facilities. In this regard, the District will continue its present practice of encouraging the construction of distribution system facilities to lands which rely exclusively on pumped groundwater.

Rosedale Ranch

Direct replenishment of the underlying groundwater occurs as incidental percolation from the unlined canals which are used to deliver surface water. The groundwater basin characteristics, described in a previous section of this report, make this incidental recharge effective, and the conveyance and distribution canals remain unlined for this reason. The primary means of replenishment, however, is the delivery of surface water, as available, in lieu of groundwater pumping.

CONJUNCTIVE USE OF SURFACE WATER AND GROUNDWATER

As discussed previously, groundwater management is, in its essence, the conjunctive use of surface water and groundwater supplies, where conjunctive use refers to integrating the two sources of supply to achieve the optimal use of each. The District's conjunctive use program reflects available facilities (for distribution, recharge, and recovery), groundwater basin characteristics, and the nature of the surface water supplies respecting availability and institutional considerations.

The District

The District's conjunctive use program includes surface delivery in lieu of groundwater pumping, transfers to neighboring areas sharing a common groundwater supply, and exchanges. Further, it depends on available groundwater storage capacity for replenishment water and, conversely, it depends on water in storage when needed to supplement available surface supplies.

Surface delivery in lieu of groundwater pumping motivated the District to purchase the use of certain additional Kern River diversion priorities in 1952 to firm up its surface water supply, and enter into a long-term contract for other Kern River supplies in 1976. This aspect of the District's program relies on its extensive system of irrigation distribution facilities. Under certain conditions (for example, during wet years), the District has facilitated the transfer/conveyance of surface water to neighboring areas. The common groundwater basin, as between the District and these neighboring areas, creates groundwater benefits for the District through such arrangements. Conversely, the District has been the recipient of wet-year water from neighboring areas. Water exchanges, in various forms, are also very much a part of the District's conjunctive use plan. Whenever possible, the District has exchanged water which would otherwise be spread (i.e., directly recharged) for water which can be delivered in-lieu of groundwater pumping.

Under the Management Program, the District will seek to preserve and enhance its extensive conjunctive use activities. Enhancement of conjunctive use activities could include the development of groundwater banking arrangements with other agencies which could realize the temporary storage of water in available groundwater storage capacity underlying the District. Such an arrangement could be effected through direct and/or in-lieu groundwater replenishment.

Rosedale Ranch

As stated elsewhere herein, the conjunctive use program for Rosedale Ranch is predicated on surface water delivery in lieu of pumping groundwater. When surface supplies are available, the water pricing structure is used to encourage the use of these supplies, and thereby preserve the groundwater resource, by setting water rates

competitive with the cost to produce groundwater. It is noted that the Rosedale Ranch area is the target of future urbanization. This is evidenced by the proposed Western Rosedale Specific Plan. Accordingly, Rosedale Ranch will continue to carry on discussions with the appropriate agencies to help ensure the preservation and enhancement of the groundwater resource.

MANAGEMENT OF GROUNDWATER EXTRACTIONS

Effective groundwater replenishment necessarily involves both the management of water supply to the basin and the management of the extractions from that basin. Management of groundwater extractions can be achieved through economic inducement such as extraction fees as well as by the adoption of appropriate extraction regulations. Management of groundwater extractions should reflect consideration of water conservation, and protection of the quality of water. Extraction fees and extraction regulations are not being proposed at this time as part of this Program. It is believed that indirect economic inducements, such as pricing water at lower rates in time of abundant supply and higher rates during dry years when withdrawals must be made from groundwater storage, are sufficient and consistent with this conjunctive use program.

The District

Extractions within the District area are by privately-owned wells and District-owned wells. Approximately one-half of the District's irrigated area is dependent on the District for its irrigation water supply, whether surface water or pumped groundwater. The District maintains wells to supplement the available surface supply to these lands. The District owns and operates these wells, which allows for the termination of groundwater pumping when surface water is available.

Rosedale Ranch

Groundwater pumping within Rosedale Ranch is accomplished exclusively through wells owned and operated by the landowners. As noted in the previous section, when surface water is available, the water pricing structure is used to encourage the use of the available surface supplies.

MONITORING

Optimal use of the groundwater resource is dependent on good basic data respecting both geology and hydrology. The purpose of this element of the Program is to characterize the conditions within the groundwater basin, both to provide a measure of the accomplishments of the Management Program and to identify and implement specific programs, as needed, to reflect changing conditions in the basin. Monitoring includes gathering the basic data and analyzing these data to characterize the basin and

would be subject to modification, as needed, to reflect changes or additions in the programs implemented under the Management Program. Monitoring is considered critical to future management decisions. Accordingly, the District's present activities in this regard may be enhanced, all as discussed following. The physical elements of monitoring described following have not been a part of the Rosedale Ranch program, however, it is envisioned that, with the cooperation of the landowners, these monitoring activities will be added, as appropriate, to the management program which is being formalized herewith.

Water Levels

Data respecting water levels are used to evaluate groundwater flow and storage conditions. Maps showing contours of equal water level elevation indicate the direction of groundwater movement and (in conjunction with knowledge of the aquifer transmissivity) also can be used to quantify estimates of groundwater underflow entering and leaving the management area. Maps of depth to groundwater can provide insight into the distribution of pumping lifts (and so assist in estimating pumping costs). Maps showing changes in groundwater levels (when used in conjunction with data on specific yield) can be used to estimate changes in groundwater storage. In addition to these water level maps, hydrographs of water levels in selected wells provide information on seasonal and long-term variations in water levels.

The District's predecessors began routinely measuring water levels about 75 years ago. District-owned wells have been routinely measured since 1952. The number of wells has ranged from the original 50 wells, constructed as part of the District's 1950 project, to 68 wells, at present. Typically, water levels are measured twice a year, in both the spring and fall and these data have been made available to the Department of Water Resources, the USBR, and all other responsible agencies. Additionally, from time to time, the District has collected supplemental water level data from its landowners.

The present monitoring network, consisting of production wells, will be reviewed in order to provide sufficient areal coverage to prepare representative water level elevation and depth contour maps. Measurement of water levels will continue to be performed in both spring and fall in order to show seasonal variations in water levels. Using the same wells for monitoring over a long-term period will facilitate the preparation of meaningful water level change maps and hydrographs.

Water Quality

Water quality monitoring, including water sampling and testing, will identify the suitability of groundwater for various uses. The same network of District-owned wells has been used for water samples for occasional water quality tests. As a part of this Program, the District will consider regular sampling and testing for a representative network of wells which would facilitate the identification of long-term water quality

trends. Water quality testing would typically include standard agricultural-type analyses, but will include additional testing (e.g., Title 22) as required.

Water Supply and Disposal

Data related to the hydrologic inventory of the basin will be collected annually. These data will allow quantification of the various elements of the hydrologic inventory, and will support further analysis of the impact of various elements of the Program. Principal components of the inventory include the amount of water replenished, and the quantity of groundwater pumped.

Analysis

Documentation, in the form of a monitoring report, will be prepared as required to present the results of the monitoring element of the District's Program. The contents of the monitoring report could include:

1. Maps showing spring and fall water elevations;
2. Maps showing spring and fall depths to water;
3. Map showing change in water levels from spring of the current year to spring of the previous year;
4. Water level hydrographs for selected key wells;
5. Map showing areas of impaired water quality;
6. Graphs of water quality over time for selected key wells;
7. Estimate of change in groundwater storage computed using specific yield data and map of change in groundwater levels;
8. Estimate of change in groundwater storage computed using the hydrologic inventory method of analysis;
9. Assess effectiveness of management activities.

INSTITUTIONAL CONSIDERATIONS

The subject Groundwater Management Program requires a public body, endowed with appropriate powers, to carry out the Program. California Water Code Sections 10750 et seq. provide the necessary powers. Many of the powers granted a water replenish-

ment district are granted to the agency organizing its program under the cited provisions of the Water Code.

The District and Rosedale Ranch would (upon adoption of the Program) have the authority to levy and collect general groundwater replenishment assessments, as well as water extraction fees based on the amount of groundwater extracted from the aquifer. However, these fees must be approved by a majority vote in an election, according to the election rules applicable to the District and Rosedale Ranch. Presently, levy of such an assessment or fee is not under consideration. The District and Rosedale Ranch are also authorized to adopt rules and regulations to implement and enforce the adopted Management Program.

Powers granted to an agency which adopts a groundwater management Program include the following:

1. The agency may take any actions needed to replenish the groundwater within the agency, including buying and selling water, delivering water in-lieu of groundwater pumping, and spreading water for recharge.
2. The agency may take actions needed to protect or prevent interference with water, water quality, or water rights within the agency.
3. The agency may take any actions necessary to put water under it's control to beneficial use.
4. The agency may take any action needed to preserve the water within the agency for beneficial uses based on water quality goals to prevent contaminants from entering the agency groundwater supplies, removing contaminants, locating and characterizing contaminants within the agency identifying parties responsible for contamination of groundwater, and performing studies relative to the water quality goals.
5. The agency may take any action needed outside of the agency if these actions are required to protect the agency's groundwater supplies, and there is a relationship between the groundwater where the action is taken and the agency's groundwater.
6. The agency may sue to recover the amount of agency expenditures for protection of groundwater quality from parties responsible for the contamination.
7. The agency is granted additional powers of a Replenishment District, which allows it to:

- a. Acquire and operate facilities, waters and rights needed to replenish the groundwater supplies;
 - b. Store water in groundwater basins, acquire water rights, import water into the agency and conserve water;
 - c. Participate in legal proceedings as required to defend water rights, and water supplies, and to prevent unlawful exportation of water from the agency;
 - d. Under certain conditions, to exercise the right of eminent domain;
 - e. Act jointly with other entities in order to economically perform required activities;
 - f. Carry out investigations required to implement programs;
 - g. Fix rates for water for replenishment purposes; and
 - h. Fix the terms and conditions of contracts for use of surface water in-lieu of groundwater.
8. The agency must investigate the use of existing facilities of other agencies to carry out programs under the plan, and if economically feasible and in the best interest of the agency, an attempt should be made to enter into a contract with the agency for use of their facility.

Most of these powers are already provided for under Water Storage District law (Division 14 of Water Code) and many are already being exercised under the District approved projects.

CONSERVATION

The District's Project and operations are based on conservation. In addition, the District's conservation practices are evidenced in its water pricing policy and in its financial support of water use education, eg., the Pond-Shafter-Wasco RCD-DWR Mobile Laboratory, the Water Association of Kern County (at the local level), and the Water Education Foundation (at the State level). Additionally, the District is a participant in the DWR-PG&E CSUSLO "AGWATER" program.

The District will continue to encourage landowners to make use of field irrigation evaluations performed by the Pond-Shafter-Wasco RCD-DWR Mobile Laboratory. These evaluations address the uniformity of water application and the efficiency of the

irrigation system and assist and guide landowners in decisions regarding the implementation of cost effective improvements.

The District practices conservation in its operations and encourages and supports conservation at the on-farm level. However, it is noteworthy that the groundwater geology is such that all water percolated to groundwater storage, either intentionally or unintentionally, is recoverable for beneficial uses. For example, seepage from unlined canals does not represent a loss, but an accretion to the underlying groundwater resource.

RELATIONSHIP TO NEIGHBORS

The District and Rosedale Ranch are surrounded by similar water agencies, all with conjunctive use projects. The District and its neighbors share a common groundwater resource. For this reason, the District has encouraged and will continue to encourage and facilitate importation of available surface water supplies to these neighboring areas. At the same time, the District remains vigilant with respect to water transfer, exchange, and banking arrangements which have the potential to affect the common groundwater resource. Accordingly, the District is taking a leadership role respecting hydrologic accounting and groundwater monitoring on a multi-district basis. Such an arrangement, if implemented, would be cooperative inasmuch as the District has limited authority outside of its own boundaries. It is noted that the District's immediate neighbor to the west, the Shafter-Wasco Irrigation District, has recently established a groundwater management program under the same Water Code authority.