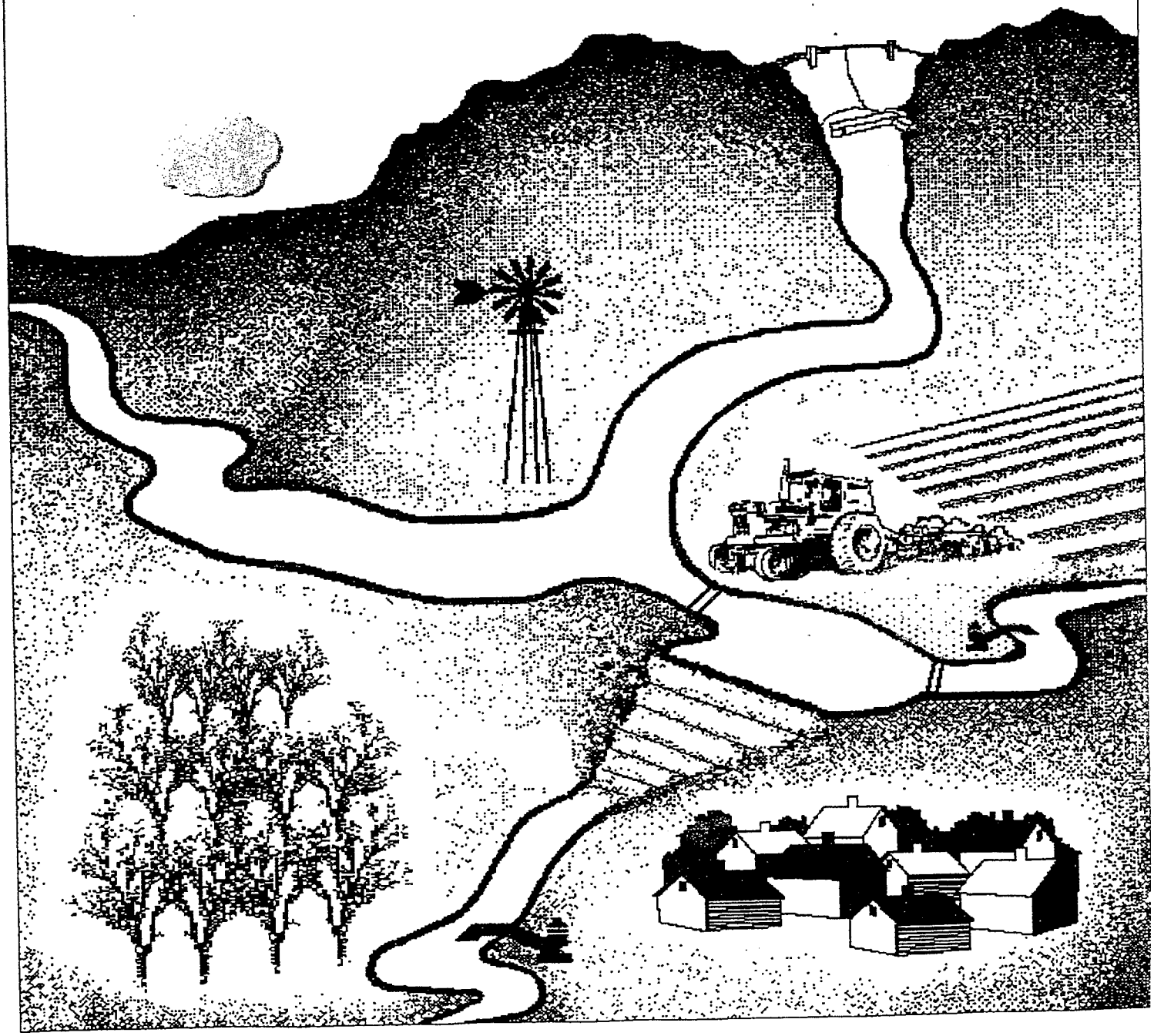
EXHIBIT 1

MERCED IRRIGATION DISTRICT

Groundwater Management Plan



Merced Irrigation District

Groundwater Management Plan

January 7, 1997

I. Introduction

A. Background

Merced Irrigation District (the "District") was established to provide water to the farms in the central portion of the San Joaquin Valley centered around the city of Merced. MID's predecessor began operations in about 1870 as the Robla Canal Company and was succeeded by the Farmers Canal Company. In 1883 the Merced Canal and Irrigation Company, with Charles F. Crocker as the principal owner, purchased the system. A few years later it was sold to the Crocker-Huffman Land and Water Company. MID was organized under the California Water Code in 1919 and purchased the Crocker-Huffman Land and Water Company. The original Exchequer Dam was built and completed in 1926 forming Exchequer Reservoir (Lake McClure) and was the largest concrete arch dam in the nation at the time.

In the early 1960's, MID obtained a modification to its Federal Energy Regulatory Commission (FERC) license to construct the larger New Exchequer Dam, construct McSwain Dam, expand the hydroelectric plant, increase irrigation water supply, and provide flood control storage for the Merced River. In 1964, MID signed a 50-year power purchase contract with Pacific Gas and Electric (PG&E) which provided PG&E with power output from the expanded plant. In return, PG&E agreed to pay for operation and maintenance expenses of the hydroelectric plant and make the semi-annual bond payments for the Project's financing.

The Project was completed in 1967 as a multipurpose facility providing facilities and water for all beneficial uses, including: domestic, irrigation, flood control, environmental, power generation and recreation.

MID's sphere of influence (SOI), established in 1992, encompasses an area of about 420,000 acres and includes nearly all of the lands within Merced County lying east of the San Joaquin River except land within the spheres of influence of other water agencies. The area outside MID's boundary and within its SOI has considerable potential for the use of both surface and groundwater as well as a need for agricultural and urban drainage. Figure 1 shows MID's SOI and its boundary.

Early in 1991, MID's Board of Directors recognized the need to establish strategic objectives for MID. MID, in a series of public community meetings, developed a Mission Statement to encourage and enhance a stable regional economy through responsible management of its physical, human, and financial resources. Principal elements of the Mission Statement include:

- Preserving and protecting District water rights.
- Encouraging stable employment and advancement opportunities for the development of MID work force.
- Promoting a reasonable balance among completing water demands, including those of agriculture, the environment, recreation, and municipal and industrial uses.

- Promoting efficient water use through sound conservation practices.
- Protecting water quality.
- Developing additional water supplies as needed to meet reasonable water demands.
- Following responsible financial practices.
- Fostering a public service attitude among all District employees.
- Supporting careful management of floodwaters and storm waters to protect life, property, and water quality.
- Encouraging community involvement in District affairs.

B. Statutory Authority for Groundwater Management

The Irrigation District Law grants MID broad powers relative to groundwater. Specifically, MID has the authority to store, spread, sink and recapture any water for the beneficial use of MID, its inhabitants or the owners of water rights within MID (Water Code Section 22078). MID has actively exercised these powers in the past to help protect the groundwater supplies within MID's boundaries.

In 1992, the California Legislature enacted AB 3030 (Water Code Section 10750, et seq.) which grants certain qualifying local agencies, such as MID, additional powers relative to groundwater. AB 3030 encourages such local agencies to undertake management of local groundwater resources, and authorizes those agencies to adopt groundwater management plans (Plans) and implement groundwater management programs (Programs). In addition, agencies adopting Plans are authorized to enter into agreements with other local agencies or private parties to manage mutual groundwater supplies, including those existing in overlapping areas, as necessary to implement their Programs.

MID intends to use the statutory powers granted to it by the Irrigation District Law and other laws, and particularly those granted by AB 3030, to adopt this Plan and implement the Program described herein (see Section IV).

C. Management Area and Coordination With Other Groundwater Management Programs

This Plan covers the area within the boundaries of MID, excepting the portion of MID that lies north of the Merced River and the areas within the jurisdictions of the incorporated cities of Atwater, Livingston and Merced (see Figure 1). Also excluded are various other community services districts and private water purveyors. Groundwater management in the portion of MID

lying north of the Merced River is covered by the Turlock Irrigation District's (TID) Groundwater Management Plan, adopted in November 1993[1].

Together with other local agencies, MID also intends to jointly develop and adopt a Groundwater Management Plan covering all of the areas within the MID SOI and not covered by the MID Plan or the TID Plan. Possible parties with MID for joint development and sponsorship of the SOI Plan include the Cities of Atwater, Livingston, and Merced , the County of Merced and possibly other local public entities.

It is MID's intent that the SOI Plan be developed so as to contribute to meeting the regional water management goals established in the Merced Water Supply Plan (see Section II) and to be compatible with and complementary to the provisions of the MID Program (see Section IV).

[1] TID is presently cooperating with other local agencies to formulate a basinwide plan for the Turlock groundwater basin. If adopted, it will supersede the 1993 TID Plan.

II. Merced Water Supply Plan

A. Genesis of the Plan

In 1992, Merced Irrigation District (MID) and the City of Merced jointly commissioned a long-range water supply study that resulted in the development of the Merced Water Supply Plan (MWSP). The MWSP addresses long-term water supply and demand within the MID SOI with a planning horizon of 2030. The basic goal shared by MID and the City and driving development of the MWSP is to *preserve and enhance the economic vitality of the Eastern Merced County area.* The two agencies recognize the essential role that a reliable, high quality water supply plays in achieving this goal. The MWSP also recognizes that increasing regional demands for water outside of the MID SOI, such as for meeting instream fish flows and Delta water quality needs, will likely influence future water availability.

B. Findings of Supporting Technical Investigations

Development of the MWSP was based on detailed technical studies of historical and existing conditions in the area as well as projections of future water demand and supply scenarios. Central to these studies were computer models that were used to simulate operation of the Merced River system (the river and its water storage facilities) and the response of the groundwater system under different conditions. Key, fundamental findings derived from the studies are as follows:

- Agricultural water demands, currently met by surface water deliveries from MID and pumped groundwater, will remain the dominant water demand in the area. While total agricultural demands will decline by about 10 percent over the next 40 years, nearly two-thirds of future water use will remain in the agricultural sector.

- An increasing percentage of agricultural demand will be met with groundwater as farmers install more and more wells. Reasons found to contribute to this trend are that wells: insure against water shortage during drought periods; provide steady, high quality water supplies that are ideally matched to the needs of pressurized irrigation systems; provide warmer water for frost control; are cost-competitive compared to MID surface water supplies; and provide more management flexibility[2].

- Rapid municipal and industrial (M&I) growth in the area will drive a three- to four-fold increase in water demands in these sectors over the next 40 years. More than half of this demand will occur in the City of Merced, 20 percent is associated with the planned University of California Merced campus (including associated population growth) and the balance will occur primarily in the Cities of Atwater and Livingston.

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2 Pending legislation that will de-regulate the electrical energy industry beginning in about 2004 is expected to result in lower energy rates and, consequently, lower pumping costs. This has the potential to accelerate the present trend toward increased groundwater pumping.

- Future environmental and instream water demands, although uncertain pending resolution of Bay-Delta and other issues, are potentially several times the existing demands for these purposes. These possible increases could have a significant effect on the reliability of MID's surface water supplies from year to year, thereby forcing increasing use of groundwater supplies.

- Absent some compensating response by local agencies, the current trend toward increasing groundwater use for irrigation coupled with less reliable surface water supplies will result in significant groundwater overdraft in the basin.

C. Recommended Plan Features

Development of the MWSP involved comparing and evaluating a number of alternatives to meet regional water management goals. The recommended alternative includes the following actions:

- Constructing direct artificial recharge facilities on a phased schedule to stabilize groundwater elevations at 1990 levels on a long-term average basis.

- Expanding groundwater-based water supply systems to meet growing M&I demands, protecting water quality through an aggressive wellhead protection program and installing wellhead treatment as needed.

- Promoting urban and agricultural water conservation efforts to reduce water demands.

- Implementing improvements to MID's surface water delivery system to improve the quality and responsiveness of service to existing users and enable expanded out-of-MID water sales, thereby maximizing local surface water use when available.

- Participating in efforts to protect and enhance fisheries in the Merced River and downstream.

- Implementing local wastewater reuse projects where feasible.

Together, these actions represent a planned expansion of the area's existing conjunctive use capability to enlarge the developed water supply of the Merced River basin. The MWSP recommends that Groundwater Management Plans be developed as soon as possible under the provisions of AB3030.

D. Adoption and Implementation of MWSP

MID and the City of Merced have adopted the MWSP[3] and regard it as the basis for water management decision making and action for the MID SOI area. In this regard, the two agencies

[3] As of the date of publication of this report, The MID Board has adopted the Merced Water Supply Plan on a provisional basis only, pending the resolution of concerns regarding the technical and economic feasibility of artificial recharge as called for the Plan. The Board has directed staff to conduct technical investigations aimed at resolving these issues. The Board is

have formed an Implementation Task Force (ITF) to sustain the partnership between them and to guide and coordinate implementation of the actions recommended in the Plan.

expected to adopt the Merced Water Supply Plan unconditionally, if and when the technical issues are adequately addressed.

III. Existing Groundwater Conditions in MID

A. Aquifers

Page (1977) recognized four aquifers beneath the Merced area. From deepest to shallowest, they are as follows:

- The Mehrten Formation: maximum thickness of 700 feet; composed of sandstone, siltstone and claystone; low to moderate hydraulic conductivities; total dissolved solids (TDS) greater than 2,000 ppm throughout the area.

- A confined aquifer between the Mehrten Formation and the base of the E-clay (Corcoran Clay): maximum thickness of 700 feet; composed of gravels, sand, silt and clay; moderate to high hydraulic conductivities; TDS generally less than 2,000 ppm, except in far western portion of the area.

- An intermediate aquifer above the Corcoran Clay and below the shallow clay: maximum thickness 700 feet; composed of gravels, sand, silt and clay; moderate to high hydraulic conductivities; TDS generally less than 2,000 ppm.

- A shallow unconfined aquifer: maximum thickness 100 feet; composed of gravels, sand and fine sand; moderate to high hydraulic conductivities; TDS generally less than 2,000 ppm.

B. Depth to Groundwater

Groundwater is found at shallow depths in the Merced area. The MID maintains a network of shallow groundwater monitoring wells that show the depths to water, seasonal fluctuations, and long-term trends of the shallow water table. Since 1982, the depths have ranged from 1 to 15 feet below the surface. There is a strong seasonal variation on the order of up to 4 feet with depths to water the shallowest during the summer irrigation season. Average depth to water has increased several feet over the period of record. Figure 2 shows the December mean water levels for each of the various subareas of MID for 1951 through 1992.

The depths to groundwater in wells that penetrate deeper aquifers are typically greater. Figures 3 and 4 show depths to water in MID and El Nido Irrigation District wells for the last 30 years.

C. Groundwater Movement

Groundwater flow in the Merced area is generally from northeast to southwest although groundwater pumpage creates cones of depression and irrigation may cause mounding, complicating the flow patterns and causing them to change in time. The response of the aquifers to changes in pumpage and irrigation is relatively rapid, and flow directions are affected by these changes.

Figures 5, 6 and 7 show the elevations of groundwater in the fall of 1974, the spring of 1988, and the fall of 1990. The 1974 contours are believed to represent steady state conditions; the 1988 and 1990 contours are representative of drought conditions (Luhdorff and Scalmanini, 1991).

The 1974 contours indicate that flow is towards the west-southwest in the area were levels were contoured. The contours are relatively evenly spaced and straight, indicating uniform flow across the contoured area.

A map of the unconfined aquifer water levels with more coverage of the area (Figure 6) was presented by the Department of Water Resources (State of California, 1991). This map indicates several major cones of depression. One cone is centered approximately 13 miles southeast of Merced in the Le Grand/Athlone area. A second major cone is centered about 13 miles south of Merced in the El Nido Irrigation District area. The third major cone shown on the map is 17 miles northwest of Merced.

The groundwater elevations relative to the elevations of the major rivers and the interaction of the these cones with the rivers suggest that some reaches of the rivers lose water to groundwater while others gain water from groundwater discharge. Comparison of Chowchilla River elevations with groundwater levels indicates that the river is higher than the groundwater. Consequently, the river probably contributes some recharge to groundwater along the reach south of the study area. The pumping cones near the Chowchilla do not appear to be affected by the presence of the river.

The groundwater elevation data indicate that there is groundwater discharge along the San Joaquin River. There is a trough in the water table elevations (lower left, Figure 6) that follows the San Joaquin River. Groundwater inflow to the river and surrounding areas occurs from both sides of the San Joaquin valley. This river and the surrounding areas are the primary groundwater discharge area for the valley.

On the north side of the study area west of Highway 99, the lower reaches of the Merced River appear to be a groundwater discharge area. East of the highway, the river may be acting as a constant head source and supplying water to the large cone of depression centered approximately 17 miles northwest of Merced. East of Oakdale Road (T5S R12E Sec. 36), the river is higher than the groundwater and probably provides some recharge to the groundwater.

The 1990 groundwater elevation map (Figure 7) shows overall elevations lower than those shown on the 1974 and 1988 maps and also shows mounded areas west-northwest and southwest of Merced. These mounds may be the result of less intense pumpage in these areas or could be the result of local recharge.

The vertical groundwater gradient, and hence the direction of vertical groundwater movement, is downwards from the shallowest groundwater to the deeper aquifers (Elliott, 1984). Consequently, degradation of shallow groundwater can potentially affect deeper water supply wells where this downward movement is significant and dilution and chemical/biological processes are insufficient to adequately reduce the concentrations of constituents of concern.

D. Groundwater Wells

There are numerous groundwater wells present in MID, including MID wells, municipal wells and private wells. Each of these is discussed in the following section.

1. MID Wells

MID operates shallow test wells, drainage wells, and project wells.

Test Wells. The shallow test wells are constructed of 2-inch-diameter pipe and are typically 20 to 30 feet deep. These wells are located at section corners throughout MID. Depth to water measurements are taken monthly and are aggregated by taking the average of all depth to water measurements within 1 of 10 subareas designated A through J. The subareas are shown in Figure 8.

Drainage and Irrigation Wells. MID constructed approximately 160 drainage and irrigation wells in the 1920s and 1930s. Initially these were intended to lower high water tables primarily in the Atwater-Livingston areas and, to a lesser extent, southwest of the City of Merced. Figure 9 shows the locations of these wells. Eventually, the drainage wells were used to supplement MID's surface water supply, particularly during drought years. Most of these wells are approximately 100 feet deep and are constructed predominantly of 16-inch casing. Approximately 10 percent of the drainage and irrigation wells have been deepened since their original construction.

Project Wells. In the mid-1960s, the Pacific Gas and Electric Company (PG&E) installed about 80 wells in MID in conjunction with the construction of the New Exchequer Dam (Figure 10). These project wells were intended to allow PG&E operational flexibility to generate power on schedules that might not match MID water demand schedules.

The project wells range from 120 to 500 feet in depth, the mean depth being 300 feet. Most of the wells are constructed with blank casing to a certain depth followed by a length of uncased hole and are located in the Livingston, Cressy, and Atwater areas (Figure 10).

2. Municipal Wells

City of Merced. The City of Merced has 19 wells (Figure 11). Table 3-11 lists the wells, their perforated intervals, capacity, specific capacity, recent static depth to water, annual pumpage, and year drilled.
The average well depth is 414 feet and the range is from 161 to 850 feet. Most of the wells that are less than 400 feet deep are cased with blank and perforated casing to a certain depth and uncased to the bottom of the hole. Deeper wells are typically cased for their entire length and often have several perforated/screened zones.

City of Atwater. Atwater currently has 12 wells. Eleven of those were operating in June of 1993. Table 3-11 lists the wells and some construction and capacity information as well as 1992 static depths to water. The well locations are shown in Figure 11. Seven wells drilled prior to 1988 are approximately 300 feet deep. Wells drilled since 1988 are 600 to 1,000 feet deep and produce water from below 300 feet.

City of Livingston. The City of Livingston currently maintains eight wells (Figure 11). The oldest well in operation is less than 200 feet in depth and is perforated from 132 feet below the ground surface. Most of the wells installed later are more than 300 feet deep. All of the wells have perforations beginning at less than 200 feet below the surface.

Other Water Purveyors. Six public and private domestic water purveyors each with over 200 connections include: Castle Joint Powers Authority (Castle Air Force Base), Franklin Water District, LeGrand Community Services District, Meadowbrook Water Company, Planada Community Services District and the Winton Water and Sanitary District (Boyle Engineering Corporation 1996). There are numerous other private water purveyors each with fewer than 200 connections, including apartment complexes, golf courses and labor camps.

3. Private Wells

A large number of private irrigation and domestic wells are present within the study area; however, there is no reliable record of the location or characteristics of these wells.

E. Groundwater Quality

The geologic units beneath the Merced area are saturated with fresh water to a depth of approximately 1,200 feet (Page, 1977). Page and Balding (1973) presented data on the ionic makeup of groundwater beneath the Merced area. The water in the unconfined aquifer was found to be a calcium-magnesium-bicarbonate type. Sodium may be the dominant cation in deeper aquifers. Samples collected between 1961 and 1975 indicated the presence of approximately 1 to 7 mg/L nitrate-nitrogen in 20 sampled wells (Page, 1977). The maximum contaminant level (MCL) for nitrate-nitrogen is 10 mg/L. The total dissolved solids content of the utilized groundwater generally ranged from 150 to 300 mg/L (Page, 1977).

Since 1983, Merced County has been collecting samples from each new domestic well. These data have identified broad areas of groundwater quality problems in the county. In the study area, nitrate and DBCP contamination have been found in the Livingston/Atwater area north of Highway 140 and west of Castle Air Force Base. High groundwater TDS concentrations occur in the El Nido Irrigation District area.

Hazardous waste sites and landfills can also pose a threat to groundwater quality. Figure 12 shows the locations of identified hazardous waste and landfill sites within the study area.

Two major contaminated sites in the study area are Castle Air Force Base and the GE Kendall plant. Castle Air Force Base has a large TCE plume (which affects City of Atwater municipal wells; see below) and a number of other solvents have been found in the groundwater. High levels of TCE and other chlorinated solvents were found in the Kendall plant area.

1. City of Merced

Samples collected in 1987 from 18 City of Merced supply wells show nitrate-nitrogen levels from about 1 to 5 mg/L (CH2M HILL and Luhdorff and Scalmanini, 1989).

Several of the City of Merced's wells have been affected by tetrachloroethylene (PCE) contamination linked to dry cleaning operations. Wells 3A, 3B, and 5 were closed because of PCE contamination in 1986 and replaced with deeper wells 3C and 5B. PCE has also been detected at Well Stations 1, 2, and 6. In addition to PCE contamination of the shallow aquifers in the downtown area, the Kendall site near Well 10 could affect groundwater in that well with trichloroethylene (TCE). This well also contained dibromochloropropane (DBCP), an agricultural chemical that is frequently found as a groundwater contaminant.

2. City of Atwater

The Atwater wells that produce water from above 300 feet have nitrate-nitrogen concentrations of 4 mg/L or more. Atwater wells that obtain water from below 300 feet have significantly lower nitrate. Two Atwater wells were shut down in 1989 because of the presence of ethylenedibromide (EDB) and DBCP. A third well was put into standby mode because of DBCP.

3. City of Livingston

DBCP has been found in five City of Livingston wells, two of which produce water that contains more than the state MCL of 0.1 ppb.

IV. Groundwater Management Program

This section describes the objectives and measures that comprise MID's Groundwater Management Program.

A. Objectives

The basic objective of MID's Groundwater Management Program is to expand existing capability to conjunctively manage the region's surface and groundwater supplies in order to meet local and regional water needs reliably. This objective is founded on the findings of the technical investigations supporting development of the Merced Water Supply Plan (see Section II).

In an operational sense, MID's Program seeks to maintain groundwater elevations at 1990 levels, on a long-term average annual basis. Specific objectives for different areas within MID may be established from time to time, seeking to raise water levels in areas were groundwater elevations are lower than desired and to reduce groundwater elevations in locations high water tables could adversely affect crop production and drainage conditions.

B. Monitoring Measures

MID recognizes that effective groundwater management depends on reliable data concerning groundwater conditions. Therefore, MID intends to conduct the following monitoring activities as an integral part of the Program.

1. **Groundwater Production.** MID has measured and recorded all District groundwater pumping, on a monthly basis, since 1943. This activity will be continued under the Program. In addition, MID will prepare estimates each year of the amount of groundwater pumped by other water users in MID, including by private parties for irrigation and domestic water supply purposes. These estimates will be derived from records of cropping patterns and suburban land use and population gathered by MID and other local agencies. MID will promote voluntary installation of totalizing flow meters on all private groundwater wells with capacities equal to or exceeding 100 gallons per minute. Also, MID will coordinate with the cities of Atwater, Livingston and Merced and smaller communities, whose water supply pumping occurs within MID boundaries, to receive their pumping records and assimilate those records into an annual report of groundwater conditions (see Item 5, below).

2. **Groundwater Levels and Storage Changes.** MID has recorded beginning- and end-of season water levels in its production wells since 1959. This activity will be continued under the Program. Where needed to improve data coverage, MID will seek out voluntary, cooperative arrangements with other parties for water level monitoring in non-MID wells. MID has also observed and recorded water levels in a network of shallow groundwater observation wells, on a monthly basis, since 1943. This activity also will be continued under the Program. Groundwater level observations will be compiled each year and estimates made of changes in the volume of groundwater in storage in MID.

3. **Groundwater Inflow/Outflow.** MID will combine available groundwater level and pumping data in the form of an annual groundwater balance to provide estimates of the unmeasured volumes of groundwater flowing into the MID groundwater system as recharge and volumes flowing out as discharge. In particular, estimates will be made of the volume of groundwater flowing from MID to adjoining unorganized irrigated lands outside of MID and within MID's sphere of influence (SOI), primarily to the south and west of MID.

4. **Groundwater Quality.** MID will conduct groundwater sampling and laboratory analyses as needed to track long-term trends in water quality parameters that are of primary interest with respect to irrigation and agricultural water use. MID will cooperate with urban water providers in MID and Merced County to receive and compile groundwater quality data pertaining to water quality from a drinking water perspective.

5. **Annual Report of Groundwater Conditions.** Each year, MID will prepare a report of groundwater conditions. The report will feature a mass balance of the MID groundwater system, providing quantitative estimates of all significant inflows and outflows. Water quality data will also be summarized and reported.

C. *Water Quality Protection Measures*

Water quality throughout the MID service area is generally suitable for agricultural irrigation. However, MID recognizes that water quantity and quality are equally important; that groundwater quality must be preserved and protected to assure the usability of MID groundwater over the long term.

With respect to use of groundwater for irrigation, MID will promote voluntary adoption of on-farm water management practices that contribute to water quality protection. Although there are presently no known problems concerning saline water intrusion, MID will monitor water quality as described above and may formulate measures to prevent or manage such intrusion if it is found to be occurring.

With respect to groundwater use for public water supplies, MID will provide cooperative support to the County of Merced (County) aimed at effective implementation of the County's Wellhead Protection Program. That Program:

1. Specifies roles and duties of federal, state and local agencies and water utilities with respect to groundwater quality protection.

2. Delineates the wellhead protection areas for each public water system well.

3. Identifies sources of contamination and potential contamination.

4. Presents approaches to protect the water supplies within wellhead protection areas.

5. Identifies contingency plans for each public water supply system to respond to well or wellfield contamination.

6. Identifies criteria for citing new wells.

7. Includes a public awareness component

D. Conjunctive Use Measures

MID has conjunctively managed and used its surface water and groundwater supplies since MID's formation. As explained earlier, it is the primary purpose of the Program to build on and further expand MID's conjunctive use capabilities to assure that local and regional water needs are met reliably. To this end, MID may execute the following measures as needed to accomplish Program objectives.

1. **Water Conservation.** MID recognizes that good water management begins with water conservation, defined here as seeking to minimize the amount of water extracted to accomplish the intended beneficial use, subject to the limits of technical and economic feasibility. Toward this objective, MID will promote voluntary adoption of on-farm water conservation practices that are appropriate for MID conditions and compatible with overall District water management objectives. Further, MID recognizes that the water delivery schedules that it provides affect on-farm irrigation water management practices and efficiency. MID will continually strive to provide increased levels of flexibility in water delivery schedules, subject to technical and economic feasibility, so as to facilitate efficient on-farm water use.

2. **Groundwater Recharge and Extraction.** MID may engage directly and indirectly in groundwater recharge and extraction activities as needed to accomplish the objectives of the Program.

   a) Such recharge activities include but are not necessarily limited to: in-lieu groundwater recharge accomplished by maximizing use of available surface water through strategic policy, surface water pricing and other mechanisms; incidental recharge accomplished by operation of MID's existing distribution facilities; and artificial recharge accomplished by construction and operation of new facilities or modification of existing facilities for recharging surface water to groundwater aquifers.

   b) Such extraction activities may include but are not necessarily limited to: strategic operation of MID's existing groundwater pumping facilities; construction of new or modification of existing groundwater pumping facilities to expand extraction capacity; and indirectly influencing groundwater extraction by private irrigation pumpers.

3. **Cooperation With Sphere-of-Influence Pumpers.** Substantial quantities of groundwater presently flow from MID toward unorganized irrigated lands in MID's SOI. This flow represents a major source of recharge to the SOI aquifers and a major discharge from MID aquifers. In consideration of the benefits provided to the SOI irrigators by sustaining this outflow, MID intends to seek out voluntary cooperative relationships with the SOI

groundwater users that compensate MID for the costs incurred in providing the benefits and contribute to accomplishing Program objectives. Such relationships may include but are not necessarily limited to: in-lieu recharge in the SOI areas through agreements for surplus water sales to SOI water users by MID or other water providers; and direct, voluntary payments from SOI irrigators to MID for the costs incurred in providing benefits.

4. **Reduction in Groundwater Outflow.** MID prefers to manage groundwater outflows through cooperative arrangements as described in the preceding measure. However, if such arrangements prove to be inadequate for accomplishing MID's groundwater management objectives, then MID may consider alternative measures to reduce groundwater outflow.

5. **Pumping Restrictions.** MID expects to be able to achieve the objectives of this Plan through the other provisions of this Program and therefore is not at the present time considering imposing restrictions on pumping. However, if it is determined through monitoring and investigation that the other provisions of the Program have proved insufficient in accomplishing the Program objectives, then MID may consider imposing pumping restrictions. In this case, any restrictions formulated by MID would be subject to approval by a majority of landowners in the district through a general election, as required by legal statute.

6. **Groundwater Extraction Fees.** MID intends to fund the implementation of this Program and other costs of groundwater management under existing revenue generation mechanisms. Therefore, MID does not presently intend to levy groundwater extraction fees or assessments to fund Program costs. However, if MID should find it necessary to levy such fees in the future, any such fees formulated by MID would be subject to approval by a majority of landowners in the district through a general election, as required by legal statute.

E. Public Involvement and Information Measures

MID believes that effective groundwater management can be enhanced through public education and coordination with other agencies; therefore, the Program includes measures addressing these factors.

1. **Coordination With Local, State and Federal Agencies.** MID will seek out cooperative arrangements with local, State and Federal agencies where such arrangements enhance effective implementation of the Program.

2. **Public Awareness.** As part of its public awareness program, MID will develop and disseminate information that builds awareness and understanding of MID's Program, including the local and regional benefits derived from expanding conjunctive use capabilities and protecting groundwater quality. With respect to water quality protection measures, MID will provide cooperative support to the County to support implementation of the public awareness component of the County's Wellhead Protection Program.

V. Implementation and Management Plan

The MID Groundwater Management Program will be implemented and managed by the District's General Manager in accordance with direction from the Board of Directors.

Day-to-day Program implementation responsibilities will reside with the District's Engineering Department, including Program monitoring activities, data compilation and analysis and preparation of the Annual Report of Groundwater Conditions.

The General Manager, in consultation with the Chief Engineer, will review the Report of Groundwater Conditions annually or as otherwise determined necessary and may direct appropriate actions consistent with the Program.

Program costs will be funded with revenues from water sales.