

**TESTIMONY OF THOMAS M. GAU
ON BEHALF OF SAN JOAQUIN COUNTY**

**IN THE MATTER OF STATE WATER RESOURCES CONTROL BOARD
HEARING ON DRAFT CEASE AND DESIST ORDERS AGAINST
UNITED STATES BUREAU OF RECLAMATION AND
CALIFORNIA DEPARTMENT OF WATER RESOURCES**

I am Thomas M. Gau, P.E. and am the Deputy Director of the Department of Public Works for the County of San Joaquin. San Joaquin County Exhibit ("SJC Exhibit") 2 is a true and correct copy of my professional background and experience. As the Deputy Director of Public Works since 2000, I am responsible for several divisions including the Water Resources Division of the Department of Public Works.

Description of County

San Joaquin County is located at the northern end of the San Joaquin Valley in Central California. The County encompasses nearly 920,000 acres of relatively level productive lands with 85% of the County's 1423 sq. miles being used for agriculture. The preservation of agricultural land is a key economic and quality of life component for the County. Historically, San Joaquin has been one of California's leading counties in gross value of agricultural commodities. In addition, industries that depend strongly on agriculture, such as food processing, wholesale trade, and transportation, benefit from San Joaquin's bounty.

As of July, 2004, the County's population was 646,007, which is 15th largest in California and estimated to be the 3rd fastest growing County in California. Official 2000 Census population counts show a population increase of almost 19,000 over a 1-year period, and is projected to increase to nearly 890,000 by 2020 – a 45% increase over current populations. According to the Department of Conservation, the rate of both farmland loss and urbanization has accelerated in San Joaquin County since 2000. "Urban land increased by more than 6,200 acres between 2000 and 2002 while agricultural land declined by a similar amount with 60% of the newly developed land being prime farmland." Population projections all show San Joaquin County will continue growing at an accelerated rate due largely to Bay Area overflow into the Central Valley, with workers migrating to San Joaquin County in search of affordable housing.

The County is bordered on the east by the Sierra Nevada foothills, and the western portion includes most of the Sacramento-San Joaquin Delta. The San Joaquin River flows south to north through the County, and the Mokelumne, Calaveras, and Stanislaus Rivers flow east to west through the County and into the Delta. Almost half of the San Joaquin-Sacramento Delta is within San Joaquin County, including the water quality

objective measuring points at issue in this hearing which include, Vernalis, Brandt Bridge, Old River near Middle River, and Tracy Road Bridge.

Water Districts and Water Supply within San Joaquin County

San Joaquin County is made up of various water interests, ranging from municipalities to large irrigation districts to smaller landowner districts. The surface water available to these various interests is limited, and in many cases is only an interim supply.

Stockton East Water District serves the agricultural area to the east of the City of Stockton and provides treated drinking water for the urban area of Stockton. It receives a water supply from the Calaveras River, at New Hogan Dam, based upon a 1970 contract with the U.S. Bureau of Reclamation. Stockton East Water District more recently constructed a diversion structure and a series of canals and tunnels to bring New Melones water from the Stanislaus River to Eastern San Joaquin County, which will make available to the urban area of Stockton an additional supply of treated water. This conveyance project which was partially complete in 1994 cost over 71 million dollars and has made only limited deliveries of interim water to Stockton East Water District. This system also serves to wheel Stanislaus River water to the Central San Joaquin Conservation District ("Central"), a neighboring agricultural water district. Although Central has a firm contract of approximately 50,000 acre feet from the Stanislaus River it also has received only a limited amount of water deliveries each year.

Oakdale Irrigation District and South San Joaquin Irrigation District have pre-1914 rights and other rights to a supply from the Stanislaus River. A portion of these districts water is currently being utilized by contract by other districts and cities within the County, including Stockton East Water District and the City of Stockton, as well as, the cities of Lathrop, Manteca and Tracy.

The North San Joaquin Water Conservation District has a small interim supply of water from the Mokelumne River based on a contract with the East Bay Municipal Utility District. Woodbridge Irrigation District receives a supply from the Mokelumne River based on pre-1914 and other rights.

In the western part of San Joaquin County, various districts receive a supply from the State Water Project and from the Central Valley Project. Other water users in the western portion of the County divert from the San Joaquin River and other channels of the Delta. This includes growers within the south delta in the vicinity of the southern Delta compliance locations.

The remainder of the County's water supply, including much of the water needed to satisfy the growing urban needs, is extracted from the groundwater basin. All seven cities within the County pump groundwater. A significant portion of the needs of the urban areas of Stockton are met from treated surface water supplied by the Stockton-East Water District. However, in dry years much of the water supply for the Stockton urban area, which contains over 300,000 people, must come from groundwater.

Critically Overdrafted Eastern San Joaquin County Groundwater Basin

The groundwater basin, however, is not in a condition to meet the current demand put on it. This is a particularly great concern with respect to the large urban area which of necessity receives a dependable supply. The Eastern San Joaquin County Groundwater Basin ("Basin") has been the subject of much concern in the past. The Basin was identified in the California Department of Water Resources Bulletin 118-80, published in 1980 as one subject to "critical conditions of overdraft." In addition, this critically overdrafted groundwater basin suffers from the migration of an ancient saline deposit underlying the Delta. Bulletin 118-80 described this situation as follows:

"This basin for many years has experienced overdraft, the adverse effects of which include declining water levels that have induced the movement of poor quality water from the Delta sediments eastward near the City of Stockton. Migration of these saline waters has severely impacted the utility of ground water in the vicinity of Stockton. Wells have been abandoned and replacement water supplies have been obtained by drilling additional wells generally to the east." (SJC Exhibit 3, Page 44.)

The critical overdraft in the Basin has resulted in a drawdown toward the cone of depression, causing salty water to move eastward and further contaminate the underground basin. Projections indicate that the rate of eastward migration of the saline front is approximately 150 to 250 feet a year. (Eastern San Joaquin Groundwater Basin Groundwater Management Plan, September 2004. SJC Exhibit 4, Page 71.) Degradation of water quality due to the advancement of this saline front threatens the long-term sustainability of a very important water resource for San Joaquin County. Damage to the aquifer could be irreversible due to saline water intrusion, withdrawal of groundwater from storage and potentially subsidence and aquifer consolidation. (SJC Exhibit 4, Page 71.)

In September of 2004 the Northeastern San Joaquin County Groundwater Banking Authority approved the Eastern San Joaquin Groundwater Basin Groundwater Management Plan. (SJC Exhibit 4.) The Northeastern San Joaquin County Groundwater Banking Authority is a joint powers agency which membership includes the California Water Service Company, Central Delta Water Agency, Central San Joaquin Water Conservation District, City of Lodi, the City of Stockton, North San Joaquin Water Conservation District, San Joaquin County, South Delta Water Agency, Stockton East Water District and Woodbridge Irrigation District with Associate member the San Joaquin Farm Bureau Federation.

The Eastern San Joaquin Groundwater Basin Groundwater Management Plan ("Plan") was developed for the purpose to review, enhance, assess, and coordinate existing groundwater management policies and programs in Eastern San Joaquin County and to develop new policies and programs to ensure the long-term sustainability of groundwater resources in Eastern San Joaquin County. The Plan promotes an Integrated Conjunctive Use Program as a key element in fulfilling the purpose of the Plan. The Integrated

Conjunctive Use Program is an inventory of viable options available to stakeholders that manage both surface and groundwater systems in order to maximize the efficient use of water resources. The Plan discusses concepts for the acquisition of new and maximization of existing surface water supplies, groundwater recharge techniques, and other options dealing with demand management water reuse. Project options are grouped into water supply elements by source surface water storage and major conveyance projects, and groundwater recharge components by program or entity.

Recognizing that the health of the Delta is linked to the water supply of Eastern San Joaquin County, included in the Plan's mission values are to "protect groundwater and surface water quality" as well as to "minimize adverse impacts to the environment." (SJC Exhibit 4, Page 1.) Surface water protection is also reiterated by the Plan's Basin Management Objective #3 that is to minimize impacts to surface water quality and flow due to continued basin overdraft and planned conjunctive use. Elements contributing to the success of this objective include:

- Utilization of surface water supplies when available in a regional groundwater recharge program or conjunctive use program that is sensitive to downstream users and the environment;
- Avoidance or mitigation of projects that detrimentally affect surface water quality and flow;
- Increased understanding of the interaction between surface and groundwater through basin-wide monitoring and science programs;
- Regular updates to the Eastern San Joaquin County Groundwater Model as new data becomes available; and
- Development of sufficient local and outside revenue sources for projects and programs to meet the Basin Management Objective #3.

(SJC Exhibit 4, Page 2.)

Other components of the Plan include a Groundwater Monitoring Program. Current activities or projects of the Program include semi-annual groundwater measurements of over 550 wells; development of the San Joaquin County Groundwater Data Center accessible to the general public for groundwater data and historic semi-annual reports; and the Groundwater Recharge and Distribution of High-Chloride Groundwater from Wells Study with the purpose to quantify the source, aerial extent, and vertical distribution of high-chloride groundwater and the sources, distributions, and rates of recharge to aquifers along selected flow paths in Eastern San Joaquin County.

Due to the combination of the critically overdrafted basin and the ancient saline deposits it is critically important that the reliance on groundwater within the County be decreased. This reliance can be alleviated through increased protection of the existing surface water supplies and with additional surface water deliveries to the County.

Agricultural Production within County

According to the San Joaquin County Agricultural Commissioner's Office 2004 Annual Crop Report the gross value of agricultural production for 2004 in the County is estimated to be \$1,613,289,000. (SJC Exhibit 5, Page 3.) In 2002, approximately 520,172 acres were in agricultural production. The ten leading agricultural products in the County in 2004 were milk, grapes, almonds, tomatoes, cherries, walnuts, hay, asparagus, woody ornamentals, and cattle. (SJC Exhibit 5, Page 14.) Many of these leading crops, and many more crops, are grown within the San Joaquin-Sacramento Delta, including tomatoes, walnuts and asparagus. Future success of agriculture and the County economy as a whole depends upon reliable water supplies of adequate quality.

Based on the 2004 San Joaquin County Agricultural Commissioner's Office Pesticide Program Database and the San Joaquin County 2004 Annual Crop Report data, San Joaquin County Public Works' staff prepared SJC Exhibit 6, which depicts the total acreage and the total commodity value of commodities grown within the South Delta Water Agency, the Central Delta Water Agency, and the area of San Joaquin County outside of these two Delta water agencies that receives irrigation water from the San Joaquin River or south Delta. Utilizing the San Joaquin County Community Development Department's Geographic Information Systems Division information, attached as SJC Exhibit 7 is a map depicting the areas that crop information was utilized for purposes of preparing SJC Exhibit 6.

Based on the 2004 San Joaquin County Agricultural Commissioner's Office Pesticide Program Database and the San Joaquin County 2004 Annual Crop Report, the total acreage of land in agricultural production in the Delta is approximately 233,088 acres or 45% of the total land in agricultural production Countywide. SJC Exhibit 8 depicts a summary of the Delta crop value. The total value of Delta crops is approximately \$323,934,305; just 20% of the total agricultural production value Countywide. For purposes of preparing SJC Exhibit 8, the analysis does not take into account potential yield variations throughout the County nor differences in variety values in commodity groups.

The percentages of total production acreage and total commodity values Countywide are clearly disproportionate. The assortment of commodities grown in the Delta is limited by water reliability, water availability, and water quality. There is a high degree of variability in water levels and water quality throughout the Delta both annually and seasonally. As a result, salt and drought intolerant crops are grown in the Delta at extreme risk. The following figures depict the top ten agricultural commodities grown in the Delta based on acreage and estimated value.

Top Ten (10) Delta Crops Based on Reported Acreage	
ALFALFA	48,030
CORN SILAGE	47,776
TOMATO PROCESS	29,088
WHEAT	23,801
ASPARAGUS	15,416
OAT, HAY	7,630
GRAPE	6,333
BEAN DRIED	5,749
ALMOND	4,930
WALNUT	4,009

Top Ten (10) Delta Crops Based on Estimated Value	
TOMATO PROCESS	\$62,538,577
ASPARAGUS	\$47,480,233
ALFALFA	\$43,179,997
CORN SILAGE	\$31,322,947
ALMOND	\$19,784,822
CUCUMBER	\$12,783,861
TOMATO	\$12,204,500
WALNUT	\$8,481,694
WHEAT	\$7,765,073
EAR CORN	\$5,562,387

The County has long battled to protect and improve Delta water supplies. Further reductions in water reliability, quantity, or quality would negatively impact agriculture values in the Delta and the value of agriculture as whole in San Joaquin County. These impacts are unacceptable.

Salinity Objectives of the San Joaquin River at Vernalis and within the South Delta

The salinity standards in the southern Delta specified in State Water Resources Control Board Decision 1641 (“D1641”) are “to protect agricultural beneficial uses of water in the southern Delta.” (D1641 at p. 79.) D1641 states that these “Objectives were developed following a study to determine the water quality needs of significant crops in the Delta.” (D1641 at p. 79.) Based on the State Board’s study, D1641 required that beginning in 2005 these salinity standards of 0.7 mmhos/cm from April through August be met at the three locations within the southern Delta.

This hearing has not been noticed or conducted as a hearing to evaluate the appropriateness of the objectives set in the 1995 Water Quality Control Plan (“WQCP”) for the Central Valley Region and implemented in D1641 or to consider changing these objectives. This hearing has been noticed and conducted to determine if the Bureau of Reclamation (“Bureau”) and the Department of Water Resources (“Department”) should be required to meet the requirements imposed by D1641 to meet these salinity objectives. Absent an appropriately noticed hearing to amend the objectives set in the WQCP and D1641, these objectives, set at 0.7 mmhos/cm from April through August, must be met by the Bureau and the Department.

Salinity Objectives on the Lower San Joaquin River Upstream of Vernalis

The Regional Water Quality Control Board – Central Valley Region (“Regional Board”) and the State Board have acknowledged the serious degradation of the San Joaquin River for many years. In the 1995 Bay Delta Water Quality Control Plan the Regional Board was directed to implement a plan to reduce the annual salt load in the San Joaquin River by at least 10%. During the 1999 Triennial Review staff indicated it was scheduled to

propose a Basin Plan Amendment to include water quality objectives and an implementation plan for salinity and boron by December 1999.

In December 1999, the State Board's D1641 directed the Regional Board to promptly adopt salinity objectives upstream of Vernalis. The Regional Board's April 2000 Staff Report stated that it was preparing the proposed Basin Plan amendment addressing salinity. In March 2001 Regional Board staff stated that progress on the Basin Plan Amendment and establishing objectives upstream of Vernalis had been halted. Then in September 2002 Regional Board staff stated that a draft Basin Plan Amendment establishing salinity objectives upstream of Vernalis would be available in the fall of 2002. This did not occur. During the December 2003 Regional Board Workshop on the implementation plan for salt and boron Regional Board staff indicated the draft to establish salinity objectives upstream of Vernalis was still not available.

On September 10, 2004, the Regional Board finally approved the WQCP amendment to incorporate a total maximum daily load (TMDL) for the control of salt and boron discharged into the lower San Joaquin River. At that time the Regional Board indicated that a draft WQCP amendment to establish salinity objectives on the lower San Joaquin River upstream of Vernalis would be available without delay. The State Board held a workshop to consider the approval of the Regional Board recommended WQCP amendment to implement the salt and boron TMDL on October 5, 2005 and is scheduled to approve the amendment on October 20, 2005.

Although the TMDL amendment is in the process of being approved, the Regional Board has not established salinity objectives on the San Joaquin River upstream of Vernalis as directed by the State Board in D1641. In the May 2005 Regional Board staff workshop staff indicated that it would have a draft Basin Plan Amendment establishing objectives upstream of Vernalis by October of 2005. To date, the Regional Board staff has not released this document.

The establishment and implementation of salinity objectives on the San Joaquin River upstream of Vernalis would improve the water quality of the San Joaquin River upstream of Vernalis and result in ability for the Bureau and Department to more easily meet the salinity objectives at Vernalis and within the south Delta. These existing standards need to continue to be met and the upstream objectives must be set by the Regional Board to protect beneficial uses upstream of Vernalis. These upstream standards should be at least the same standard as the Vernalis standards in order to protect beneficial uses upstream of Vernalis.

Other Recent San Joaquin County Efforts to Improve Water Quality in the San Joaquin River and the Delta

As early as the 1950s San Joaquin County has been suffering from the increased salinity of the San Joaquin River due to the state and federal water projects. In the 1960s measurable crop damage occurred within the Delta, including damage to bean crops, due to the high salt concentration of irrigation water from the Delta channels. In 1961, San

Joaquin County sought and obtained the passage of the San Joaquin River Protection Act (Wat. Code §§ 22000 et seq.) which “declared that a serious problem of water quality exists in the San Joaquin River between the junction of the San Joaquin River and the Merced River and the junction of the San Joaquin River and Middle River.” Wat. Code § 12230. At this time the state Legislature clearly recognized the serious problem of water quality within the San Joaquin River and the Delta.

San Joaquin County has consistently and historically taken action to support the improvement of water quality within the San Joaquin River and the Delta. It has encouraged the state and federal governments to affirmatively address water quality and salinity problems of the San Joaquin River. Several actions have been taken by the County in recent years to protect and improve the San Joaquin River and Delta.

1999 Unified Position to Identify Water Management Issues Regarding the San Joaquin River and South Delta Region

In 1999, the County joined several local water agencies in developing a uniform position to identify water management issues regarding the San Joaquin River and South Delta region. The Board of Supervisors approved this Unified Position in August 1999 which is SJC Exhibit 9. At that time, the local agencies adopted a Unified Position on Resolving Water Management Concerns for the Lower San Joaquin River and South Delta Region. The Unified Position included the support of a comprehensive plan to resolve San Joaquin River water quality problems. A component of the comprehensive plan supported the resolution of San Joaquin River problems (SJC Exhibit 9.)

2002 San Joaquin County Water Management Plan

In 2002, the Board of Supervisors adopted the San Joaquin County Water Management Plan, which is a comprehensive plan to provide reliable water supplies for sustaining San Joaquin County’s current and future economic, social and environmental viability. The Plan recognizes that the most complicated factor of San Joaquin County’s water situation is the health of the Sacramento-San Joaquin Delta.

2003 Resolution 03-691

In July of 2003, the Bureau, the Department, the State Water Contractors, Contra Costa Water District and San Luis Delta-Mendota Authority met in Napa, California to develop a strategy to implement portions of the CALFED Bay-Delta Program 2000 Record of Decision. During those meetings, there were negotiations regarding increasing the Delta export pumping by the state and federal projects from the current limit of 6,680 cfs to 8,500 cfs. This would provide up to an additional one million acre-feet of annual yield to the State Water Contractors and the Central Valley Project. After these meetings become public, state and federal representatives strongly suggested gathering support from the Delta water agencies.

Subsequent meetings occurred that included representatives from the County of San Joaquin and other county water interests including the Central Delta Water Agency, the South Delta Water Agency and Stockton East Water District. These subsequent meetings discussed the Central Valley Project (“CVP”) and State Water Project (“SWP”) including increased export pumping to the detriment of the Delta and San Joaquin County. The past and current export pumping has already lowered water levels and decreased water quality in the south and central Delta, and possibly increased saline intrusion to the groundwater basin. Groundwater is used as an alternative to surface water, and due to the overdrafted groundwater basin, this contributes to damage to farmers, water users, recreational opportunities and the delicate Delta environment in San Joaquin County.

Further intensifying this problem, water quality and flow of the San Joaquin River has seriously deteriorated since the completion of the Friant Dam, the Delta Mendota Canal, and the California Aqueduct. Inflow to the Delta from the San Joaquin River consists primarily of high saline drainage from farmlands and wetlands in the CVP’s Westside service area. As a result, hundreds of thousands of tons of concentrated salt flow into the San Joaquin River each year. The State Board established flow and water quality standards on the San Joaquin River near Vernalis and directed the USBR to meet these standards. Consequently, the Bureau has elected to meet the Vernalis standards with substantial releases from New Melones Reservoir on the Stanislaus River. These releases for water quality purposes have reduced the amount of water available for SEWD and Central CVP contracts. The Bureau has shown little interest in addressing salt drainage or the restoration of flows in the San Joaquin River in a manner that does not harm San Joaquin County interests.

Due to these impacts to the County, on December 9, 2003, the Board of Supervisors adopted Resolution 03-691 reiterating its position relative to the San Joaquin River and the Delta. (SJC Exhibit 10.) Resolution 03-691 states in part as follows:

1. That permanent operable barriers, dredging and other related project mitigation be implemented and operating prior to increased SWP export pumping to prevent water supply and quality impacts to the South Delta and Central Delta. Other project mitigation must include the implementation of improved water quality, level and channel depth standards and the development of a reliable and enforceable mechanism to ensure the permanent protection of all beneficial uses within the Delta.
2. The San Joaquin River be restored to provide for the reestablishment of in-stream flows from Friant Dam to the Delta and other measures be implemented such as a recirculation program and/or releases from San Luis Reservoir to result in improved water quality in the Delta including the Stockton Deep Water Channel and reallocation of water supply from New Melones Reservoir to meet the requirements of the Watershed Protection Act. The first use of any water from increased export pumping shall be to restore the San Joaquin River.

3. That high-salinity drainage water from lands in the CVP Westside service area, Grasslands and wildlife refuges shall not be permitted to flow into the San Joaquin River at times when the drainage will cause the need for releases from New Melones Reservoir or from other eastside tributaries to comply with the Vernalis Water Quality and Flow Standards and the South Delta Salinity Standards.
4. That water users in San Joaquin County have priority for water resource development and supply in the Delta and other local watersheds over water exports, and the CVP and SWP must mitigate all impacts caused by such water exports to comply with the San Joaquin River, Delta and Watershed Protection Acts.

(SJC Exhibit 10. Page 2.)

2004 Resolution 04-568

On October 12, 2004, the San Joaquin County Board of Supervisors adopted Resolution 04-568 (SJC Exhibit 10) strengthening its position that the San Joaquin River should be restored to provide for the reestablishment of instream flows from the Friant Dam to the Delta for salmon fishery and for all other beneficial uses in the County. Resolution 04-568 also authorizes County participation in negotiations to restore the San Joaquin River from the negative impacts of historic Friant Dam operations, and that actions should be taken to restore the San Joaquin River should not negatively impact San Joaquin County water users, but should return flows to the River and surrounding waterways to provide reliable water supplies to sustain the County's economic, social and environmental viability. (SJC Exhibit 11. Page 1.) Resolution 04-568 also provides that water supply from New Melones Reservoir should be reallocated to honor area of origin statutes under the Watershed Protection Act, and that drainage water from lands in the Central Valley Project Westside service area shall not be permitted to drain into the San Joaquin River at times when the drainage will cause the need for releases from the Stanislaus River or from other eastside tributaries to comply with the Vernalis and South Delta Salinity Standards. (SJC Exhibit 11, Page 2.)

Valley Wide Drain

In 1960 when the United States Congress authorized construction of the San Luis Unit of Central Valley Project (Act of June 3, 1960, Public Law 86-188, 74 STAT. 156) it provided that the construction of the San Luis Unit shall not be commenced until there were assurances for the drainage system for the San Luis unit. This was the out of valley drain, which has never been constructed. The Regional Board has identified the valley-wide drain as the only feasible long-term solution to the drainage problem. (D1641 at page 85.) In *Firebaugh Canal Co., et al. v. United States of America, et al.*, (9th Cir. 2000) 203 F.3d 568, the Ninth Circuit Court of Appeals required the Bureau to provide drainage service. Despite court orders, the Bureau is making only slow progress on the out of valley drain. Just this year, the Bureau released a draft environmental document

for the valley wide drain. Under the 2000 Strategic Plan to Meet Water Needs, San Joaquin County submitted comments to that draft environmental document and has continuously supported the construction of a valley wide drain to improve the drainage problems in the San Joaquin Valley and thus improve the salinity of the San Joaquin River and Delta. (SJC Exhibit 12.)

Salinity Objectives Must Be Met, but Not by Solely Relying on New Melones Water Releases

Due to the location of the water quality measuring point at Vernalis, the Stanislaus River is operated in such a manner as to provide substantial fresh water releases to the San Joaquin River to dilute salinity concentrations, resulting from upstream operations of the state and federal projects, to comply with water quality objectives at Vernalis. The effect is that a substantial amount of Stanislaus River water from New Melones Reservoir is used to dilute pollution in the San Joaquin River. This use of high quality Stanislaus River water for dilution of salinity in the San Joaquin River deprives San Joaquin County water agencies of water that would otherwise be available for agricultural and municipal use within San Joaquin County. On numerous occasions, County entities have previously encouraged the State and Federal governments to affirmatively address the water quality and salinity problems of the San Joaquin River in a manner that does not exclusively rely on New Melones water.

D1641 acknowledged that the barrier program alone would not result in the attainment of water quality objectives (D1641 p. 88) and the Bureau and DWR have indicated that dilution flows alone may not satisfy the salinity objectives (Draft Orders 262.31-16 and 262.31-17, pp. 2-3). Therefore, the need to implement measures other than the barriers and dilution flows from New Melones should not be a surprise to anyone, including the Bureau and Department.

It is imperative that the standards set by the State Board to protect agricultural producers located within the Delta and San Joaquin County be met and enforced. In addition, the Division Chief does not have the authority to alter or change the requirements of D1641. The Division Chief's July 1, 2005 conditional approval of the Water Quality Response Plans should not have altered or changed the requirements imposed by D1641 nor relaxed the southern Delta water quality objectives.

The Bureau and the Department must meet these objectives and utilize the many tools available to the Bureau and the Department to manage the federal and state systems to meet these objectives. D 1641 identifies the options available to the state and federal projects to meet these standards, without depriving San Joaquin County of its contract water from New Melones Reservoir or depriving Delta users of the quality and quantity of water necessary to sustain their agricultural beneficial uses. The draft cease and desist orders also contain alternatives and measures available to the Department and Bureau to meet the existing salinity objectives.

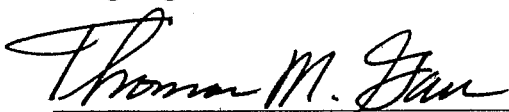
- ✓ D1641 directs the Bureau to “consider dilution water other than New Melones Reservoir.” (D1641 p. 86). D1641 indicates that, “Although releases of dilution water could help meet the southern Delta objectives, regional management of drainage water is the preferred method of meeting the objectives.” (D6141 p. 84.) D1641 also recognizes that “a valley-wide drain will be the only feasible long-term solution to drainage problem.” (D1641 p. 85.)
- ✓ The draft cease and desist order provides examples of some of the possible tools available to the Bureau and the Department including additional releases from state and federal facilities, reduction of exports, or purchases of water. (Draft Orders 262.31-16 and 262.31-17 at page 3.)

The State Board in D1641 acknowledged that the Bureau and Department would have to do more. The State Board should require the Bureau and Department to do just that in this hearing. The federal and state projects must operate in a manner that does not harm those beneficial uses including agriculture which is so much in question that exist within the Delta and South County, without depriving San Joaquin County users of its contracted water. The measures identified in the draft cease and desist orders should be supplemented to include the mitigation measures identified in D1641 including regional management of drainage water and making meaningful progress on the valley-wide drain. To monitor the Bureau’s progress on the valley-wide drain, the State Board could require the Bureau to provide periodic reports to the State Board regarding its progress to develop and implement a valley-wide drain.

The Bureau and the Department must be required to meet the established salinity objectives to protect agricultural beneficial uses within the Delta by implementing some of these available mitigation measures. Any discussion of diminished water quality, whether it is in the Delta or some other area of the State, in an era when all federal, state and local regulatory attention is focused on its sustainable improvement, is at the very least ludicrous.

The exhibits referenced and attached to this testimony are true and correct copies of the referenced material.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.



Thomas M. Gau, P.E.

Date: 10-14-05