GOVERNOR'S COMMISSION
TO REVIEW CALIFORNIA WATER RIGHTS LAW

FINAL REPORT

DECEMBER 1978

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STATE OF CALIFORNIA EDMUND G. BROWN JR., Governor

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December 22, 1978

Edmund G. Brown Jr.
Governor of California
State Capitol
Sacramento, CA

Dear Governor Brown:

It is my great pleasure to transmit to you the Final Report of the Governor's Commission to Review California Water Rights Law. This report is submitted to you pursuant to your directives in Executive Orders B-26-77 and B-33-77.

The report contains the Commission's analysis of existing California water rights law and recommendations for modifications in the same. In each case where modification is recommended the text of a proposed statute is included in the report.

The Commission has examined a long list of legal matters bearing on water resources management in California. Although the Commission finds much of the existing law to be sound and not needing change, four topics do require modernization. These are certainty in water rights, efficiency in water use, instream uses of water, and groundwater.

The Commission acknowledges with considerable gratitude the extremely valuable work of our Director, Professor Harrison C. Dunning, and his very able staff, the advice of many invited experts, and the assistance of more than two hundred individuals and agencies who commented on a draft version of this report.

Finally, the Commission joins me in expressing the hope that the report will make a lasting contribution to sound water resources management in California. Speaking on behalf of my colleagues, may I express our thanks to you for the confidence you demonstrated in appointing us to this important Commission.

With best personal regards, I am,

Most sincerely yours,

Donald R. Wright
Chairman

Enclosure

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CHAPTER I. PRELIMINARIES

A. Introduction

Drought succeeds like nothing else in reminding Californians of their enormous dependence upon water. Irrigated agriculture, many industries, hydroelectric power generation, water-related recreation, fish and wildlife resources, and many aspects of our home life continue and prosper only if adequate supplies of fresh water are available. The recent drought demonstrates the potential frailty of that prosperity.

During the 1976-77 drought year, water shortages forced the State Water Project to impose fifty percent deficiencies on agricultural deliveries. The U. S. Bureau of Reclamation was forced to reduce deliveries by seventy-five percent for agricultural use and by fifty percent for municipal and industrial use. While precipitation during the 1977-78 year has dramatically improved the short-term water conditions of the State, long-term prospects remain bleak. By the year 2000 the state's net demand for water may considerably exceed net dependable supply. Clearly, continuous attention to the allocation of water and to water rights law, as well as to expanding the supply of water available for beneficial use, will be necessary.

California water rights law is extremely complex. Its foundation consists of judicially developed doctrines recognizing several kinds of water rights. Some of these doctrines came from the English common law, which was developed long ago in a very different physical setting. Others have been fashioned by the California courts and Legislature to fit the state's historical pattern of settlement and growth.

Overlying this base are statutes which create or allow the creation of a multitude of local water agencies and which authorize large-scale projects, such as the federal government's Central Valley Project and California's

State Water Project. These statutes also significantly influence the allocation of water. Constitutional and statutory provisions which set state policy on the conservation of water and the maintenance of water quality serve as well to limit water rights.

Just as the drought of 1976-77 focused the attention of Californians on our sources of water and available means for conserving these sources, it served also to highlight the principal strengths and weaknesses of the state's water rights law. It showed us which parts perform well under stress and which parts require improvement. It provided an excellent opportunity for California to respond to the invitation issued by the National Water Commission in 1973 to the states to modernize the law in order "to secure greater productivity, in both monetary and nonmonetary terms, from existing water supplies." 1/

B. Creation, Mandate and Procedures of the Water Rights Commission

The Governor's Commission to Review California Water Rights Law was created by Executive Order on May 11, 1977. This order noted that the State Constitution requires all waters of the State to be put to beneficial use to the fullest extent of which they are capable and not be wasted. In addition, the order recognized that existing California water rights law includes impediments to the fullest beneficial use of the state's water resources and stated that the drought then in progress underlined the need to review all aspects of water resources management in California, including water rights law. The Executive Order provided for an advisory commission to "review existing California water rights law, ... evaluate proposals for modifications in this law and ... recommend appropriate Legislation" in a report to the Governor. 2/

1. Review of Existing Law and Evaluation of Proposed Modifications

Since California water rights law has not been comprehensively examined since the work of the Conservation Commission during 1911-1912, the Commission began with a careful study of this law. The Commission decided at the outset to exclude federal law aspects of California water rights problems, since the Governor and the Legislature can do little to change these. The Commission also decided not to undertake a systematic review of the extensive statutory material on local water agencies and on the large-scale water development projects. Finally, the Commission decided not to review the statutory law which protects areas from which water is exported.

In June 1977 the Commission approved six topics for intensive review:

1) Appropriative Water Rights in California
2) Groundwater Rights in California
3) Legal Aspects of Water Conservation in California
4) Riparian Water Rights in California
5) The Transfer of Water Rights in California
6) Legal Aspects of Instream Uses in California

The Commission's staff prepared a detailed paper on each of these topics. Each paper sought to provide a comprehensive review of the existing law as well as a preliminary list of issues to be considered by the Commission. These background papers, listed in an appendix to this report, constitute the Commission's response to the Governor's directive to review existing California water rights law.

The staff background and issues papers were submitted to Commission members and distributed to a mailing list of nearly one thousand people.

Thereafter, a series of workshops was conducted to receive the opinions of invited experts and the general public. The workshop schedule was as follows:

1)	July 14, 1977	Appropriative Rights	Sacramento
2)	August 12, 1977	Groundwater	Los Angeles
3)	September 13, 1977	Water Conservation	Oakland
4)	November 10, 1977	Groundwater	Chico
5)	December 8, 1977	Riparian Rights	Stockton
6)	January 12, 1978	Transfer of Water Rights	Fresno
7)	February 18, 1978	Instream Uses	San Francisco

2. Development of Proposals

From March through July 1978 the Commission met periodically to review material presented at the workshops and to consider and debate the policy options available to California. In the course of these meetings, many options were rejected as unwise or as promising insufficient benefit to justify the effort to pass new legislation. Some of these rejected options will be noted briefly in the body of this report.

Because of the importance of engineering and other technical expertise in water resources management, the Commission in September 1977 invited a number of leading technical experts to join a Technical Advisory Group. Members of this group have assisted the Commission by responding to particular questions of a technical nature. Early drafts of this report were submitted to the Technical Advisory Group to review the narrative text for technical accuracy and the proposed statutes for technical feasibility. Members of this group were not asked to comment from the standpoint of policy or need for the recommended statutes.

On August 30, 1978, the Commission released a draft of its report. A day-long symposium was held in Sacramento to explain the principal recommendations. Subsequently, four days of public hearing were held as follows:

Sacramento	September 28, 1978
Fresno	September 29, 1978
Los Angeles	September 30, 1978
Burlingame	November 9, 1978

Numerous changes have been made in the report as a result of the more than two hundred comments received.

The Commission is also preparing a study of the estimated costs of implementation of the recommended statutes. This will be submitted as a supplement to this report.

3. Relationship to Water Development Projects

The Executive Order establishing the Commission did not direct it to review state policy on water development projects and, accordingly, the Commission has not done so. The Commission recognizes that surface water development can be instrumental in solving water shortage problems. However, numerous obstacles to rapid additional surface water development have arisen in recent years. A University of California task force recently commented as follows:

> Regardless of the outcome of water development debates, the issue of significant new supplies for California farmers in the 1980's is somewhat theoretical. The time lag between the funding of a large new project and its completion virtually dictates that surface water supplies cannot be changed much during the next decade. In the 1980's, California agriculture will have to continue to adjust to the amount of water supplied by projects now completed or well under way.

> The question of getting state or federal commitments for water projects in the 1990's and beyond will be discussed often in the next few years. Because taxpayer resistance is a force to be reckoned with, it is doubtful that California farmers can realistically hope for much general public support for major new water developments primarily for the benefit of agriculture. State water developments which do not depend on federal support (except for flood control, recreation and fish and wildlife benefits) might be feasible, although the outlook is dim even there. Major federal projects probably would meet even more opposition. 3/

Reforms in water rights law are not inimical to water development projects; neither do they mandate that any particular water development policy be adopted. It is quite possible that reforms in water rights law and water management policies, together with efforts to implement such reforms, will encourage support for future water development.

Whatever course the State chooses with regard to water development, water will continue to be a resource of great value in California. It is essential that water rights law be re-examined and rewritten where necessary to ensure that the greatest possible benefit is obtained from the water available.

C. Overview of Existing California Water Rights Law

English common law, the foundation of the legal system in all but one of the United States, treats land and water as inseparable natural resources. Water is normally not scarce in England, so disputes over water have been rare and non-statutory rules of water law have never been highly refined. But the basic historic principles are well established: rights to water are part and parcel of title to the land adjoining or "riparian" to the watercourse; the riparian landowner is entitled to use water from the watercourse, but must share the water with other riparian landowners; and the water may be used only on riparian parcels of land located within the watershed.

In much of California, however, water has long been a scarce resource, frequently the object of fierce competition and disputes. California led the states of the American West in departing at an early date from the common law principles of water rights and in developing a new set of rules, which treat water as a natural resource to be appropriated independently of the land resource.

These rules were fashioned to meet the needs of the gold miners, who had established claims throughout public domain lands, principally in the foothills of the Sierra Nevada. By custom these miners followed the rule of "first in time, first in right" regarding both their mining claims and allocation of the surface waters used to wash their ore. In 1855, in the case of Irwin v. Phillips, the Supreme Court of California approved this rule. The court concluded that the right to protection of a prior appropriation of water was firmly fixed by "a universal sense of necessity and propriety." 4/ From Irwin and subsequent decisions emerged the fundamental principles of prior appropriation. The water right allows use of a fixed quantity of water, with no restriction to the boundaries of a watershed or to parcels of land adjoining the stream. The origin, measure and limit of the right is beneficial use, so that the right ceases when beneficial use has ended. In time of shortage the most recent appropriators must give up use of water first, and there is no pro rata sharing of the shortage.

From 1855 until the mid-1880's, the appropriative rights doctrine served to decide lawsuits over water arising in the mountainous mining regions of the State. This doctrine was included in the Civil Code of 1872 in a few brief sections. By the 1880's, however, the valleys had begun to be developed for agriculture. Farmers claimed the flow of streams, including the annual spring overflows, to irrigate their riparian lands.

In Irwin v. Phillips the common law riparian doctrine was not dispositive because both parties to that dispute, being trespassers on the public domain, lacked the title to land essential to claim a riparian right. The question remained whether ownership of riparian land would give the owner a right to the use of water from an adjacent watercourse. The matter finally was decided in 1886 in the famous case of Lux v. Haggin. In an opinion running two hundred pages in the California reports, it was decided on a 4-3 vote that riparian rights coexist with appropriative water rights. 5/ Thus was created the "California doctrine", which recognizes the existence of two radically different kinds of water rights on a single stream.

California water rights law focused in the nineteenth century on the use of surface waters. By the turn of the century, however, groundwater in Southern California became the object of disputes. In 1903, the California Supreme Court in Katz v. Walkinshaw developed a set of rules for groundwater known as the "correlative rights" doctrine. Owners of land overlying a groundwater basin who used the water on the overlying land were recognized as holding the paramount right. Such owners among themselves were to share the water on a correlative basis, similar to the sharing of surface waters by riparians. Any water surplus to the needs of these overlying owners remained available for appropriation by others.

Nineteenth century California water rights law dealt primarily with disputes among individual users of water - miner v. miner, farmer v. farmer, miner v. farmer. Lux v. Haggin, however, pitted the giant cattle-raising firm of Miller & Lux against the Kern River Land and Canal Company. The year after Lux was decided, legislation was enacted to allow the collective development of water resources through use of irrigation districts.

By the early part of the twentieth century, irrigation and other types of water districts were numerous. Furthermore, power companies had begun the development of hydroelectric projects, and cities such as Los Angeles and San Francisco were developing projects to bring water from sources hundreds of miles away for municipal water supply. Disputes coming before the courts tended to set an individual against a city, water district or public utility, or occasionally, to set one collectivity against another.

One such dispute was of particular importance for California water rights law: Herminghaus v. Southern California Edison Company. [6/] In light of the recognition of riparian rights in Lux v. Haggin, the California Supreme Court in 1926 held that a downstream riparian could command the entire flow of a stream to flood riparian pastureland, thus preventing the development upstream of a power project by an appropriator. Riparians, limited by a standard of reasonableness among themselves, were held to no such standard in contests with appropriators.

As a direct result of the Herminghaus decision, the California Constitution was amended to extend a reasonableness standard to disputes between riparians and appropriators. This was done by prohibiting the waste of water and limiting water rights to reasonable beneficial use. This limitation is of fundamental importance today. "Reasonable beneficial use" is now the central theme of modern California water rights law. With changing notions of what is waste or unreasonable use of water, the Constitutional provisions will play an increasingly significant role in future water disputes.

Administrative control of water rights in California dates from the early part of the twentieth century. In 1911 the Conservation Commission was established to gather data and information on forestry, water, mining and

other matters for the purpose of "revising, systematizing and reforming the laws" on these subjects. [7] It recommended that a permit and license system for the appropriation of unappropriated water be established in order to reduce costly and repetitive litigation and to provide an administrative check upon hoarding of water resources by power companies or other large interests. This recommendation, enacted by the Water Commission Act of 1913, was approved by the people in a referendum in 1914. Since December 19, 1914, all new appropriations of surface water or of water flowing in subterranean streams in a known and definite channel have required application to and approval of an administrative agency of the State. This agency, today the State Water Resources Control Board, now routinely inserts in the permits and licenses it issues terms and conditions designed to protect both the public interest and the existing water rights of other users of the source.

During the fifty years since enactment of the Constitutional Amendment, changes in California water resources management have been dominated by the massive projects constructed by the federal and state governments. Both the federal Central Valley Project and the State Water Project have had an important impact on the allocation of water resources. Elaborate contractual arrangements have tended to replace the classical appropriative and riparian rights as the tool for adjusting competing claims. Negotiations and contracts between project operators and individual water users have served to provide greater certainty and specificity to riparian rights.

Assessment of the quantitative importance of the various kinds of water rights recognized by California law is hampered by a general lack of refined data. Gross estimates may be made, however, in an effort to provide a rough guide.

The appropriative right occupies the dominant position. At least half of the state's annual net water demand of 31 million acre-feet is met by the use of water initially secured through an appropriation of surface water within California. Approximately a quarter of such use is based upon unregulated pre-1914 appropriations. The balance is use under a permit or license issued by the State since 1914. Perhaps half of this balance is based on appropriations by a federal or state agency, in which case contractual arrangements provide for the final allocation of the appropriated water.

Second in importance for surface waters is the riparian right, which provides the basis of claim to perhaps ten percent of the 31 million acre-feet. Much of the riparian use today is concentrated along the Sacramento River and its tributaries and in the Sacramento-San Joaquin Delta. Many riparian claims to waters of the San Joaquin River were exchanged for contract rights at the time of construction of the Friant unit of the Central Valley Project.

Some surface waters also are used on the basis of a prescriptive right, which is acquired by use adverse to the right of another. In the case of at least three cities, water is used on the basis of a "pueblo" right derived from Spanish and Mexican law. This is the paramount right of a city as successor to a pueblo to use water naturally occurring within the pueblo limits for the use of the inhabitants of the city.

In total, approximately sixty percent of average annual net water demand is satisfied from surface water sources within California. The balance comes primarily from imports from the Lower Colorado River and from groundwater. Although the groundwater is used on the basis of rights which are variations of riparian or appropriative rights, no estimate can presently be made as to

the share for each. At present, groundwater supplies are being overdrawn by more than two million acre-feet annually.

Critics of our principal types of water right have emphasized uncertainty regarding these rights and inefficiencies in their utilization. Riparian surface water rights and overlying groundwater rights are neither quantified nor given priorities vis-a-vis other riparian or overlying rights. Such uncertainty, in the view of many critics, inhibits investment and encourages litigation. Appropriative rights are quantified and have priorities, but the scope of the unregulated pre-1914 appropriative rights is uncertain in many instances. Criticisms regarding inefficiency center on difficulties encountered in transferring either kind of water right from one place of use, point of diversion or purpose of use to another. The "use it or lose it" philosophy of appropriative rights has also been attacked as encouraging inefficiency.

Critics of our water rights law also note that while great emphasis has been given to rights to divert water from streams, aside from the few streams covered by the Wild and Scenic Rivers Act, little attention in practice has been paid to the protection of instream beneficial uses. With respect to groundwater, they observe that there is no general way to control overdraft apart from complex, expensive, and time-consuming litigation. Furthermore, the use of underground storage capacity has not been addressed in any comprehensive way.

Although many of the criticisms of riparian and appropriative rights may be valid, members of the Commission urge that the established structure of water rights be retained. The existing system performed in much better fashion than might have been anticipated during two of the driest years in California history. Riparian and appropriative rights have served as the

foundation for billions of dollars worth of investment. They are property rights subject to constitutional protection. Their deficiencies are better remedied by making them more secure and their utilization more efficient than by eliminating them in favor of an untried system. Chapters Two and Three of this report set forth the Commission's views as to how some of the deficiencies of riparian and appropriative water rights could be minimized.

Traditionally, protection of instream beneficial uses involving no dam or other physical structure has been provided only by the ad hoc measure of inserting terms and conditions into permits and licenses issued to appropriators. Since 1972, the Wild and Scenic Rivers Act has provided very broad protection to various reaches of certain California rivers by placing them entirely off-limits for most development. But the State Water Resources Control Board has refused to process applications to appropriate water for instream fisheries use, and no effort has been made to develop comprehensive instream flow standards. Members of the Commission urge that the State now begin to develop such instream standards and set forth in Chapter Four the Commission's recommendations for an appropriate standard-setting process.

Integration of water rights into comprehensive water resources management programs has been the most difficult problem dealt with by the Commission. The protection owed to existing private property rights in water must be balanced against the need for adequate preservation of the total water resource in the interest of all Californians. Such preservation can be accomplished only with careful management of both surface water and groundwater.

In many parts of California, local water agencies working in cooperation with state and federal water agencies have achieved a reasonable level of management of surface water supplies. Frequently private rights to the use

of such supplies have been successfully integrated into management programs. For groundwater, however, in many areas such management has been the exception rather than the rule.

Members of the Commission believe it is imperative that California now take steps to initiate more effective management of groundwater resources. Such management should be primarily local in nature, but it should be designed to achieve goals important to the entire population of the State. Whenever possible, groundwater management should be coordinated with surface water management and local water districts should be encouraged to work cooperatively. Chapter Five describes the Commission's recommendations for a process to achieve more effective management of groundwater resources.

FOOTNOTES TO CHAPTER I

1. National Water Commission, Water Policies for the Future 227 (1973).

2. State of California Executive Department, Executive Order B-26-77 (May 11, 1977). The original reporting deadline of June 30, 1978, was changed to December 31, 1978, by Executive Order B-33-77 (August 26, 1977).

3. The University of California Agricultural Issues Task Force, Agricultural Policy Challenges for California in the 1980's 17, 18 (1978).

4. Irwin v. Phillips, 5 Cal. 140, 146 (1855).

5. Lux v. Haggin, 69 Cal. 255, 10 Pac. 674 (1886).

6. Herminghaus v. Southern California Edison Co., 200 Cal. 81, 252 Pac. 607 (1926), writ of certiorari dismissed, Southern California Edison Co. v. Herminghaus, 275 U.S. 486 (1927).

7. California Conservation Commission, Report 3 (1912).

CHAPTER II. TOWARD GREATER CERTAINTY IN WATER RIGHTS

A. General

Water rights are property rights. As such, they serve much the same ends as other types of property rights. Society benefits from the institution of property in three general ways.

For the individual, property is the means for holding and enjoying personal wealth, satisfying the private need for security and stability. For the individual and society together, property is the means for harnessing and utilizing resources. It permits the rational choices and calculated risks whereby present wealth joins labor to produce new wealth. For society at large, property implies regulation in the public interest. Where the market is incapable of securing the greatest advantage from the unhindered exploitation of resources, or where the private enjoyment and use of wealth impinges on the rights and liberties of others, regulation of private property is called for to advance the welfare of the people in general.

The realization of these benefits of property requires some degree of certainty. Certainty gives the security of knowing what one has and what one can do with it. It allows planning and rational investment. It permits government to gauge effectively the social disadvantages of unregulated property and to legislate accordingly.

But it is relative uncertainty which is the distinctive attribute of water rights and water rights law in California. Uncertainty was one of the major problems identified by the Conservation Commission, whose recommendations led to the adoption of the Water Commission Act of 1913. [1/] Procedures set forth in the Water Commission Act, now incorporated into the California Water Code, included the administrative conferral and regulation of

appropriative rights, court reference procedures, and statutory adjudications of stream systems to settle and determine all rights. These were major steps toward correcting the problem.

The administrative system established by the Water Commission Act goes far toward giving certainty to water rights. It provides an administrative framework whereby unappropriated water is identified and a permit is granted for the use of a specific quantity of water with a specific date of priority. When a permittee has completed his appropriation within a time specified by the State Water Resources Control Board in accordance with the principle of due diligence and has applied the water to a beneficial use, a license is issued confirming the perfected right. An important aspect of the system is that it provides records of all post-1914 appropriative rights.

B. Sources of Uncertainty

Although post-1914 appropriative rights are quantified and recorded, uncertainty nonetheless remains. One source of uncertainty lies within the statutory system itself. The major source of uncertainty, however, lies in the fact that a large number of non-statutory rights are not quantified and recorded. This in turn creates uncertainty for statutory rights as well.

1. Inadequate Recordation

A significant source of uncertainty in California water rights law is the lack of recordation of non-statutory rights. These include pre-1914 appropriative rights, prescriptive rights, and riparian rights.

Before 1914, appropriative rights could be obtained simply by diverting water and applying it to beneficial use. Except for those appropriators who chose to comply with the optional filing provisions of the Civil Code,

pre-1914 appropriations were not recorded. Notice of prior appropriations could only be obtained by a physical inspection of the entire stream. Such inspections were difficult and often unavailing. Between 1860 and 1890, for example, four ditch companies on Cache Creek in Yolo County were forced out of business and lost substantial investments because they did not know that their planned uses would interfere with a superior appropriative right on the stream. 2/

Even where water rights were recorded with the County Recorder under a Civil Code appropriation, the quantities of water claimed were often exaggerated. It was reported in 1903 that the average flow of the Kings River varied from 5,000 to 10,000 cubic feet per second in flood and one-tenth that amount in the dry season. At that time, water rights claims on this river amounted to 750,000 cfs, "exclusive of a large number of claims to the entire supply." 3/ It was also reported that, while the San Joaquin River had a discharge of 6,000 cfs, the recorded notices of appropriation claimed 914,286 cfs. Such exaggeration largely destroyed the utility of recordation.

There has similarly been no effective recording requirement for riparian and prescriptive rights. A statute was enacted in 1965 providing for statements of diversion and use to be filed periodically by claimants to water whose rights were not already a matter of public record. 4/ However, the statute provided for no legal sanctions for failure to comply, and it is estimated that such statements have been filed by only ten percent of the unrecorded water users.

2. Rights to Future Use

The various doctrines which confer a present right to the future use of unused water are a second source of uncertainty in California water rights

law. Persons who appropriate or use the unused water in the intervening period are subject to having their uses preempted when the prior right holder finally does put that water to use. This type of uncertainty-producing "dormant" right appears in all types of surface water rights in California: statutory appropriative rights, Civil Code appropriative rights, non-statutory appropriative rights, and riparian rights.

This doctrine appears in two places within the statutory appropriation system. The first involves the statutory exemption of municipalities from the due diligence requirement. 5/ Municipalities may obtain a right to appropriate water in excess of their current needs. The unused water within the municipal entitlement may be appropriated by others, but they risk being preempted by future municipal needs.

The second is the provision for "state filings." Under this provision, the Department of Water Resources may file for unappropriated water to serve a general plan for the development, utilization, or conservation of the state's water resources. These filings secure a priority as of the date of application but are also exempt from the requirement of due diligence until they are assigned. 6/ As in the case of the municipal exemption, later appropriators of water are liable to be preempted by the subsequent use of water under these rights.

In a similar fashion, municipal and county appropriators under the Civil Code received a complete waiver of the due diligence requirement. 7/ The City of San Francisco and the City of Ventura, for example, currently have made claim to water far in excess of their present use or even their present capacity to use water.

Rights to the future appropriative use of water not involving an exemption from the due diligence requirement exist for many pre-1914 rights under the "relation back" doctrine. Contrary to the general rule that appropriative rights are quantified and definite, many pre-1914 rights have been subject to indefinite increase. The only limits on such rights are that new or expanded uses must be within the scope of the original intent of the appropriator, and that additional water must be applied to beneficial use within a reasonable time and with reasonable diligence. If these vague and liberally construed criteria are satisfied, the priority of right to the additional water relates back to the time of the initial commencement of work. While non-statutory appropriations could not receive the benefit of this relation back vis-a-vis intervening Civil Code appropriators, the new uses could relate back to preempt intervening riparian patentees and possibly intervening appropriators under the Water Commission Act or the Water Code. Reasonably diligent Civil Code appropriators benefited by the doctrine of relation back against all intervening users of water. 8/

While dormant rights are exceptions to the basic appropriative doctrine, they are central to the doctrine of riparian rights. Rights to future use are but one aspect of the uncertainty inherent in the riparian doctrine. The riparian right is not a right to a specific quantity of water; rather, riparian owners on a stream are entitled to make a reasonable use of a correlative share of the stream flow. What a riparian's actual entitlement is at any given time varies with the circumstances of the time and place. A new riparian use, from either a recent patent of riparian land, a recent activation of a hitherto dormant riparian right, or the expanded use of an active riparian right, is entitled to share equally with all earlier riparian users.

As against an appropriator, a riparian owner is accorded a fixed priority of right. But the quantity of water to which the right attaches remains unfixed. Thus, an expanded riparian use has the potential to preempt an inferior appropriative right where the supply of water originally was sufficient to satisfy both uses. 9/

3. The 1928 Constitutional Amendment

The 1928 Amendment to the California Constitution was an exercise of the police power which substantively redefined water rights. It declared that no right attaches to the waste or to the unreasonable use, method of use, or method of diversion of water. While it was contemplated that the Legislature would enact appropriate laws in furtherance of the policy of conservation and optimum use of water, the impact of the Amendment on water rights has been primarily judicial and administrative.

A result of this adjudicatory approach has been the application of the Amendment to water rights on a case-by-case basis, since the reasonableness of a particular use of water will vary with the facts and circumstances of the particular case. 10/ As in the case of the riparian doctrine, what is at present a reasonable use of water may not be one in the future.

In this respect the effect of the Amendment has been to cast a shadow over questionably reasonable uses of water. With increased demand for water in general, changing ideas of what is reasonable, and the vagaries of climate and other factors involved in the ad hoc determination of reasonable use, the shadow of uncertainty may envelop increasing numbers of water uses.

C. The Consequences of Uncertainty

The consequences of uncertainty are manifold. Uncertainty hampers the local management and supervision of water uses. The exclusion of riparian rights from early statutory adjudications provides an example. In recent

years, watermaster management of the 1932 Shasta River adjudication has encountered serious problems because riparian interests have come into conflict with the administration of rights within the watermaster service area.

Uncertainty also hampers state administration of water rights. Lack of knowledge of water use by non-statutory right holders affects decisions to grant permits, because the availability of water for appropriation and the existence and extent of other beneficial uses of water are uncertain. It also affects the ability of the Board to set meaningful terms and conditions and to provide effective enforcement and protection of statutory water rights.

Perhaps the most pernicious result of uncertainty in water rights historically has been recurrent and costly litigation. A private court suit to quiet title to water binds only those water users made party to the suit. Yet, shortages in supply or new appropriations or riparian uses have the potential to bring all water users on the stream into conflict. The history of water rights litigation on the Kings River in Kings, Fresno, and Tulare Counties provides a very clear example of the inability of the private lawsuit to put an end to disputes over water and to bring certainty to water users.

Litigation on the Kings River began in the drought year of 1876. 11/ Lawsuits rapidly multiplied until, by 1902, at least 103 suits to settle water rights disputes had been filed in the courts of Kings, Fresno, and Tulare Counties. 12/ Of the 36 suits which had moved to judgment, the owners of the Rancho Laguna de Tache grant were involved in at least seven, the Lower Kings River Water Ditch Company and the Last Chance Water Ditch company in six each, and the 76 Land and Water Company (and its successor, the Alta Irrigation District) and the People's Ditch Company in five each. 13/

Yet, the piecemeal efforts to settle and determine rights to water through individual lawsuits had brought the problem no nearer to resolution. A United States Department of Agriculture Office of Experiment Stations report remarked:

> The Fresno Canal and Irrigation Company has a prior right as against the Last Chance Canal of 100 cubic feet per second, and a prior right against the Lower Kings River Canal to a similar amount. It has a prior right to 1,000 cubic feet per second as against the 76 Land and Water Company, but what are its rights as against the other canals? No one has the least idea. The Centerville and Kingsburg Ditch Company has a right to 600 cubic feet per second subject to prior rights of 673 cubic feet per second. What are its rights outside of these 673 feet? It will take several more lawsuits to decide. The rights of the 76 Land and Water Company are inferior to those of the Peoples Water Ditch Company, the Last Chance Water Ditch Company, and the Rancho Laguna de Tache, but what is the rank of priority as against others? Only the courts can answer.... The suit of one canal company against another company may settle the rights of these parties as against each other, but it settles nothing with respect to other appropriators not made parties to the litigation, and the whole controversy may be opened up at any moment.... 14/

Nineteen years later, the California Department of Engineering referred to the situation described in the Department of Agriculture report, and stated: "Since that time history has been repeating itself and the litigation [here given as 137 suits filed] does not seem to leave anything permanently settled." 15/ The Department of Engineering report gave several examples of the anomalies created by the litigation. For example, in a Fresno County judgment, the Emigrant Ditch Company was decreed a right to 190 cfs against the Rancho Laguna de Tache and the whole world. In a Kings County judgment, the People's Ditch Company, the Last Chance Water Ditch Company, and the Lower Kings River Water Ditch Company were awarded rights superior to Emigrant. And in judgments in Kings and Tulare Counties, the Rancho Laguna de Tache was decreed rights to water superior to all other users on the river. As a result

of these judgments, A had rights superior to B who had rights superior to C who had rights superior to A. 16/

An agreement was reached in 1921 among the users on the Kings River authorizing the State Division of Water Rights to prepare and administer a temporary schedule of distribution of water. The agreement, 24 years in the works, was impelled by the fact that several suits by riparian owners had been set for trial for the fall of that year. The agreement became final in 1927 when the Kings River Water Association was created by the Water Right Indenture of May 3, 1927. 17/

It was not until 1949 that water users on the South Fork of Kings River and in Tulare Lake Basin finally joined the Association. The state watermaster supervising the Kings River agreement later reflected: "All litigation over Kings River water rights had been dismissed, and there was peace on the river for the first time in more than eighty years." 18/

The Kings River was by no means an isolated example. Lawsuits on the San Joaquin above its juncture with the Merced River involving the Miller and Lux interests are legion. 19/ The same is true of disputes on the Kaweah. 20/ By 1927, the Lindsay-Strathmore Irrigation District had spent $671,611 on the litigation of its water rights on the Kaweah and St. Johns Rivers, or almost one-half the amount of its original bond issue for construction of works. 21/

In 1903 the noted irrigation engineer Elwood Mead reviewed successive suits litigating the pueblo rights of Los Angeles, which had already consumed over 30 years. The first two suits involved two riparian owners on the Los Angeles River. Another 1881 suit involved other riparians. Between 1881 and 1903, three more suits were prosecuted. Of the last, ending in 1899, Mead

queried: "Whether this decision will stand remains for the future to determine..." 22/ What the future held in store were two gigantic lawsuits, Los Angeles v. Glendale and Los Angeles v. San Fernando, both reaching the California Supreme Court and involving important issues of Los Angeles' pueblo rights. 23/

The rampant water rights litigation of the turn of the century has disappeared in many areas. In part, this has been due to agreements among water users on streams or to organization of users into districts of various types. In part, it has been due to the regulation of water use through water contracting by the State Water Project, Central Valley Project, and other related government projects. But in large part, it has been due to the advent of the statutory appropriation system, the statutory adjudication procedure, and related administrative functions. "The combination of statutory adjudications and court reference procedures, plus the availability of watermaster service, has substantially reduced litigation of water rights in California and, where adjudication has been necessary, has substantially reduced its cost." 24/

The inhibition of water transfers and the resulting inefficient allocation of scarce water resources are another consequence of uncertainty. They are discussed in Chapter III of this report.

D. Means for Achieving Greater Certainty

One solution to the problem of uncertainty entertained by the Commission was the incorporation of all non-permit rights into the statutory permit system. Corollaries of this solution included the quantification of riparian rights and their limitation to actual use and the placing of fixed limits on pre-1914 appropriative rights. This approach has been taken in several of the western states throughout this century.

Such data as exist indicate that there is relatively little unirrigated arable riparian land in California. Therefore, while uncertainty caused by the presence of unexercised riparian rights may be significant in certain localities, it appears not to be significant on a statewide scale. Likewise major uncertainty produced by unfixed pre-1914 appropriative rights appears to be limited to discrete areas and to discrete users. Neither of these observations recommends a systemwide solution. It should also be pointed out that many of the non-statutory water rights in California, especially on the Feather, Sacramento, and San Joaquin Rivers, have been ascertained and fixed by virtue of Central Valley Project and State Water Project studies and contracts.

Furthermore, the costs of incorporation loom large. Incorporation would probably require the adjudication of every stream in California. Even with the economically salutary statutory adjudication procedure as an alternative to massive private lawsuits, the benefits do not appear to justify the costs. In Oregon it has cost over $8 million in engineering and administrative costs to adjudicate 70 percent of the state's area. 25/ The adjudication and incorporation of all the water rights in California would certainly cost at least as much.

The alternative to incorporation is the determination of water rights on a stream-by-stream basis. In this way, the problems of uncertainty and its ill effects may be addressed where they are most significant. The basic mechanisms to implement this alternative already exist in the statutory adjudication procedure.

The statutory adjudication procedure in California provides for the comprehensive and final determination of water rights on a stream or stream system. The procedure is initiated by petition by a water rights claimant to

the State Water Resources Control Board. If the petition is granted, the Board notifies water rights claimants, investigates the stream system and water uses, and makes a preliminary determination of rights. The Board then enters an order of determination defining all rights in a stream system and files the order in the superior court of the county in which all or a portion of the stream system lies. The order and any exceptions to the order filed by water rights claimants constitute the basic pleadings of a judicial proceeding, which results in a court decree determining the rights of all claimants. 26/

Eighteen statutory adjudications have been completed in the past 64 years. The great majority of these have been in the northeastern portion of California.

E. Recommendations

The Commission recommends the alternative of adjudication on a stream-by-stream basis. As opposed to incorporation, this alternative allows a selective approach to the problems of uncertainty, providing for the achievement of greater certainty where the benefits outweigh the costs.

The Commission proposes that greater access be given to and wider use be made of an improved statutory adjudication procedure. Supplementing this approach to achieving certainty on a problem-stream basis, the Commission also proposes that the present requirements for filing statements of diversion and use be strengthened to create an effective statewide recording requirement for all uses of water. Finally, the Commission recommends that further acquisition of rights by prescription be explicitly prohibited.

1. Greater Use of Statutory Adjudications

The Commission recognizes that the primary benefit of the statutory adjudication procedure is to provide an efficient alternative to private

litigation. A statutory adjudication binds all claimants on a stream. Comprehensive determination of water rights prevents recurrent litigation and gives the certainty of official recognition to private property rights.

In addition to formal dispute resolution, the process provides a framework for compromise and agreement among water users. The Board's technical expertise and the resources at its disposal for accurate and objective fact finding make the Board an especially suitable mediator. The adjudications also create the basis for the orderly control and management of water on a stream through watermaster service programs.

The statutory adjudication procedure can also provide valuable information for water rights administration and for planning purposes. Information gained in statutory adjudications can be used in the permit application process to determine whether water is available for appropriation and to ascertain the nature and extent of "vested rights" to which permit rights are subject. The enforcement obligations of the Board would likewise be facilitated. Statutory adjudications can be used to enhance planning efforts in determining the availability of water for state or federal projects or the availability of water for the protection of instream values.

In order that the public interest and necessity be as fully served as possible by the utilization of these procedures, the Commission recommends that the Board be allowed to initiate a statutory adjudication and that courts be permitted to transfer private suits to quiet title to water to the Board for statutory adjudication. The Commission further recommends that a hearing to determine whether the public interest and necessity will be satisfied be made mandatory where the Board decides to initiate a proceeding, accept a reference from the court, or grant a petition for adjudication from

a private claimant. In addition, whenever the Board receives a court reference order, and it appears that the public interest and necessity would be best served by having a full determination of rights instead, the Board would be able to petition the court to modify its order of reference and to order a statutory adjudication.

The Commission addresses the goals of finality and comprehensiveness specifically in its recommendation regarding the inclusion of interconnected groundwater and the quantification of riparian rights. The statutory adjudication procedure has traditionally been limited in scope to surface waters. In a recent adjudication, it was found that the Scott River is a "gaining stream" whose flow is affected by nearby groundwater pumping. The Legislature passed a statute to include such "interconnected" groundwater in the Scott River adjudication.

The Commission believes that in certain situations the inclusion of closely interconnected groundwater in statutory adjudications would provide the benefits of certainty, finality, and conjunctive management of integrated water supplies. The Commission therefore recommends that groundwater which is interconnected with a stream or stream system such that the use of the groundwater substantially affects the use of surface water be included in an adjudication, but only where essential to the fair and effective determination of rights on the stream. Virtually all groundwater is to some extent interconnected with streamflow, and this provision should be carefully construed so as to avoid conflicts with the basic program of groundwater management.

The Commission also recommends that the Board and the court be expressly authorized to quantify all riparian uses and to accord unexercised riparian rights lower priorities than active uses of water. This authority is to be limited to those adjudications where such actions are required to secure the

reasonable beneficial use of water under California Constitution Article 10, Section 2. The Commission recognizes that the constitutionality of the power to limit riparian rights in this manner is an issue currently before the California Supreme Court, 27/ and its decision may require revision of the Commission's recommended statute.

The Commission recommends several procedural modifications to expedite the statutory adjudication process. These include a closer integration of the administrative and judicial stages of the procedure.

In addition, only limited statutory procedures currently exist for the modification of a decree. Since a known and expeditious modification procedure would facilitate the process, the Commission recommends and sets forth such a procedure. The Commission also proposes that the Board and claimants be able to seek trial distributions of water at various stages in the proceedings.

Finally, the Commission considers that greater use of the statutory adjudication procedure requires the State to assume all or a portion of its costs. Specifically, the Commission makes three proposals:

1. When the Board initiates a statutory adjudication, it is to bear its entire cost.

2. When an adjudication is initiated by petition or by a court transfer, the Board is to have discretion to assume any portion of the cost of the adjudication.

3. When the Board holds its hearing to determine whether the public interest and necessity will be served by a statutory adjudication, the estimated cost of the adjudication as well as the apportionment of the cost between the State and the claimants on the stream, where appropriate, shall be taken into consideration.

2. Statements of Diversion and Use

The Commission recommends the strengthening of existing reporting requirements, specifically the provisions of the Water Code dealing with statements of diversion and use. As to the contents of the statement itself, the Commission recommends that each statement should include the legal basis upon which a diverter claims the right to use water.

Most significantly, the Commission recommends that certain legal sanctions attach to the failure to comply with the requirements of the section. The first sanction would be the refusal of the Board to issue a permit, license, extension of time, or other administrative entitlement to any person required to file a statement who has not done so. A second sanction would be the refusal of the Board to consider a protest filed against the approval of a permit application where the protestant has not made his use of water of record by filing a required statement of diversion and use. A third sanction would be to impose a civil penalty of up to $1,000 on any person required to file a statement who has not done so, or any person making a willful misstatement.

3. Prescription

A third measure proposed by the Commission to deal with the problem of uncertainty in California water rights law involves the doctrine of prescription. The prescriptive acquisition of water rights prior to 1914 was widespread and significant. Since 1914 it has been a question of debate as to whether prescription survived the Water Commission Act. This question is currently before the Court of Appeal. The Commission believes that prescription ought to be abolished prospectively and that the recognition or regulation of existing prescriptive claims should await judicial clarification.

The Water Commission Act and the Water Code serve the goal of state administration of and supervision over the important water resources of the state. The board may accept or reject an application to appropriate as the public interest requires. Uses which are more socially beneficial may be selected over those which are less socially beneficial. Public interest terms and conditions are imposed to protect and reconcile other valuable uses of water. In general, the people have a voice in deciding how they wish a scarce state resource to be allocated and how its use is to be exercised. None of this would occur with prescriptively acquired water rights. In addition, prescription exacerbates the lack-of-knowledge problem which hinders effective planning, management, and enforcement of water and water rights.

Moreover, it is very doubtful that any type of prescription of water rights advances socially valuable goals. On the other hand, it increases the uncertainty of individual water rights.

While the "openness" and "hostility" of adverse possession of a static and well-defined resource such as land may fairly give notice to the owner of an adverse claim, the same is not true for water. One who holds a water right, in a common and fluctuating resource, may be put to the near impossible task of ascertaining whether a decrease in supply is caused by hydrologic factors, lawful uses by superior right holders upstream, or adverse use by a potential prescriptor.

F. Text of Proposed Legislation

An act to renumber Section 2525 of, to amend Sections 2500, 2757 and 2852 of, and to add Sections 2518, 2519, 2520, 2521, 2522, 2524, 2525, 2704, 2705, 2706, 2757.5, 2760.5, 2769.5, 2775, 2852.5, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, and 2909 to the Water Code, relating to statutory adjudications.

The people of the State of California do enact as follows:

SECTION 1. Section 2525 of the Water Code is renumbered Section 2523.

SEC. 2. Section 2500 of the Water Code is amended to read:

2500. As used in this chapter, "stream system" includes stream, lake, or other body of water, ~~and~~ surface tributaries and contributory sources, interconnected groundwater supplies the inclusion of which is essential to a fair and effective determination of the rights to other water of the stream system, and subterranean streams flowing through known and definite channels, but does not include ~~an~~ other underground water ~~supply~~.

SEC. 3. Section 2757 of the Water Code is amended to read:

2757. At least ~~10~~ 20 days prior to the day set for hearing, each party in interest who is aggrieved or dissatisfied with the order of determination may file with the clerk of the court notice of exceptions to the order of determination.

SEC. 4. Section 2852 of the Water Code is amended to read:

2852. If the total amount of expense exceeds the total amount received from claimants at the time of submission

of proofs, the excess expense shall be equitably apportioned by the board against the parties to the proceeding; except that the board may, in its discretion, assume any portion of the expenses of the determination initiated by petition or by transfer from a superior court.

SEC. 5. Sections 2518, 2519, 2520, 2521, and 2522 are added to the Water Code to read:

2518. The board shall not commence proceedings for a determination of rights under Sections 2519, 2520, 2523, or 2524 of this chapter unless, after hearing, it is determined that the public interest and necessity will be served by the determination.

2519. (a) At any time after the board has received a court reference order under Sections 2000 or 2001 of this part and before it has filed its report, it may, upon a finding that the public interest and necessity would be served thereby, petition the court to modify its order of reference and to order a reference for a determination of rights according to the provisions of this chapter.

(b) The court may, upon consideration of the board's findings and the issues at bar, modify its order to require a determination of rights according to the provisions of this chapter.

2520. (a) In any suit in any court of competent jurisdiction in this State for determination of rights to water, the court may, upon its own motion, upon motion by a party to the

suit, or by the board in intervention, request the board to investigate whether the public interest and necessity would be served by a determination under this chapter of the rights of the various claimants to the water of the stream system on which any parties to the suit have alleged rights to water, and to report its findings to the court.

(b) If the board finds that the public interest and necessity would be served thereby, the court may, upon consideration of the board's findings and the issues at bar, refer the suit to the board for a determination of rights according to the provisions of this chapter.

2521. If the court orders a reference under either Section 2519 or 2520 of this chapter, it shall order all other action in the suit held in abeyance pending the completion of proceedings under Articles 1 through 8 of this chapter.

2522. The board shall file a certified copy of the order of determination, together with the original evidence or certified copy thereof and transcript of testimony filed with or taken before the board and certified by it, with the court pursuant to the court's order of reference under Section 2519 or 2520 of this chapter. All further proceedings shall be conducted in compliance with the provisions of Articles 9 through 13 of this chapter, beginning with Section 3751, and with the provisions of Chapter 4 of this part; except that the court shall also conduct such further proceedings as may be required for the proper disposition of any outstanding issues raised by the parties prior to the order of reference.

SEC. 6. Sections 2524 and 2525 are added to the Water Code to read:

2524. The board may, upon its own motion, enter an order initiating proceedings under this chapter for the determination of the rights of the various claimants to the water of a stream system if, after hearing, it finds that the public interest and necessity will be served by a determination of the rights involved.

2525. The board shall adopt regulations to provide principles and guidelines which it shall apply to determine whether the public interest and necessity will be served by a determination of rights under this chapter. The regulations shall require, but shall not be limited to, a consideration of the estimated costs of the determination and the possible apportionment of the costs, where appropriate, between the board and the claimants.

SEC. 7. Sections 2704, 2705, and 2706 are added to the Water Code to read:

2704. If the board, at any time after it has commenced proceedings to determine rights under this chapter and before it has entered its order of determination, determines that the public interest will best be served by a trial distribution program, it shall seek an order therefor by filing a petition with the superior court in and for the county in which the stream system or any part thereof is located. The board shall give notice of its petition to each claimant on the stream.

2705. The court's order may authorize the board to conduct a trial distribution of water for a reasonable period of time, during which time the board's representatives shall supervise the distribution of water in accordance with the trial distribution program.

2706. The board's representatives charged with the supervision of the trial distribution shall summarize and report all pertinent measurements, observations, and conclusions made during or regarding the trial distribution to the board for consideration in the final order of determination.

[Comment: These sections are in part verbatim restatements of proposed additions to the 1976 amendments, which do not appear to have been transmitted to the Legislature for consideration. Given that cooperation and conciliation are the hallmark of successful and expeditious adjudications, it is envisioned that these sections will be used only where one or two recalcitrant claimants on the stream refuse to agree with the other claimants to a trial distribution under board supervision.]

SEC. 8. Section 2757.5 is added to the Water Code to read:

2757.5 No exception to the order of determination shall be considered, except in the court's discretion and for good cause shown, unless it appears that the matter of the exception was presented to the board in the form of an objection.

[Comment: It is intended that "good cause" include intervention under Article 10; and the situation where the board has amended the order of determination and thereby created an issue which did not exist at the hearing of objections.]

SEC. 9. Section 2760.5 is added to the Water Code to read:

2760.5. The order of determination filed by the board is deemed prima facie evidence of the physical facts it contains.

SEC. 10. Section 2769.5 is added to the Water Code to read:

2769.5. The court shall quantify riparian rights in the decree and shall accord unexercised riparian rights priorities lower than those it accords to active uses of water if necessary to secure the reasonable beneficial use of water within the meaning of California Constitution, Article 10, Section 2.

[Comment: This section is predicated on the idea that final and comprehensive determinations of water rights advance the constitutional policies of preventing waste, conserving water, and promoting the fullest beneficial use of water. A statement containing a legislative declaration and finding to this effect may be desirable. Insofar as the section limits unexercised riparian rights only to an extent commensurate with the principle of reasonableness, it is compatible with existing case law.]

SEC. 11. Section 2775 is added to the Water Code to read:

2775. The court may, upon motion by the board or by the holder of any water right determined and set forth in the decree, or upon its own motion:

(a) Enter an order appointing the department to supervise through the agency of a watermaster the distribution of water in accordance with the provisions of the final decree.

(b) Enter an interlocutory order appointing the board to supervise through the agency of a watermaster the

distribution of water in accordance with the provisions of the order of determination filed by the board with the court, or in accordance with the provisions of the order of determination as modified by the court in its discretion for the purposes of the supervised distribution only.

SEC. 12. Section 2852.5 is added to the Water Code to read:

2852.5. If the proceeding was initiated by the board, pursuant to Section 2524 of this part, none of the expenses of the determination shall be apportioned against the parties.

SEC. 13. Sections 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, and 2909 are added to the Water Code to read:

2901. The board or any holder of a water right determined and set forth in the decree may petition the court for modification of the decree. Upon receipt of a petition for modification from a holder of a water right, the court shall refer the petition to the board for investigation and recommendation.

2902. Upon reference of a petition by the court, or before the board files its own petition for modification, the board shall provide notice of the proposed modification by registered mail to the last known address of each claimant in the decree who could be significantly affected thereby and shall provide a reasonable opportunity for claimants opposed to the proposed modification to file an objection with the board, in which the grounds of the objection are set forth. The board may in its discretion hold a hearing on the objections.

2903. Upon consideration of all objections, the board shall file its report including its recommendations with the court and shall send a copy to the petitioner and to all claimants who filed objections.

2904. After the court has received the board's report, it shall set a time for the hearing of the matter of the proposed modification. The board shall provide notice thereof by registered mail to the last known address of each claimant in the decree who could be significantly affected thereby.

2905. At least twenty days prior to the day set for hearing, any claimant who filed an objection under Section 2902 who wishes to oppose the petition may file with the court a notice of opposition to the petition, stating therein with reasonable certainty the grounds of the opposition. The claimant shall cause a copy of the notice to be transmitted to the petitioner and to the board.

2906. The petition, the recommendations of the board, and the notices in opposition to the petition shall constitute the pleadings.

2907. The court shall grant the petition and order a modification of the decree only if it finds that the modification will not operate to the injury of any legal user of water and that no reasonable beneficial use of water will be impaired thereby.

2908. The court shall base its findings upon evidence submitted by the petitioner, the board, and claimants in opposition to the petition, as well as any other evidence required for a just determination of the issues.

2909. The court shall order the petitioner to reimburse the board for the costs of providing notice to claimants under Sections 2902 and 2904.

An act to amend Sections 5101 of, to add Sections 5105.1, 5105.2,and 5109 to,and to repeal and add Section 5103, 5107 and 5108 of, the Water Code, relating to statements of water diversions and use.

The people of the State of California do enact as follows:

SECTION 1. Section 5101 of the Water Code is amended to read:

5101. Each person who, after December 31, ~~1965~~ 1979, diverts water shall file with the board, prior to July 1 of the succeeding year, a statement of his diversion and use; provided, however, that no statement need be filed if the diversion is any of the following:

(a) From a spring which does not flow off the property on which it is located.

(b) Covered by ~~an application,~~ a permit or license to appropriate water on file with the board.

(c) Included in a notice filed pursuant to Part 5 (commencing with Section 4999) of this division.

(d) Regulated by a watermaster appointed by the department.

~~(e) Reported by the department in its hydrologic data bulletins.~~

~~(f) Included in the consumptive use data for the delta lowlands published by the department in its hydrologic data bulletins.~~

~~(g)~~ (e) Included in annual reports filed with a court or the board by a watermaster appointed by a court or pursuant to statute to administer a final judgment determining rights to water, which reports identify the persons who have diverted water and give the general place of use and the quantity of water which has been diverted from each source.

~~(h)~~ (f) For use in compliance with the provisions of Article 2.5 (commencing with Section 1226) of Chapter 1 of Part 2 of this division.

(g) Included in a statement by an agency or entity for which the board may, by regulation or rule, permit the filing of a statement under this part.

SEC. 2. Section 5103 of the Water Code is repealed.

~~5103. Each statement shall be typewritten or legibly written in ink on a form provided by the board and shall include:~~

~~(a) The name and address of the person who diverted water and of the person filing the statement.~~

~~(b) The name of the stream or other source from which water was diverted, and the name of the next major stream or other body of water to which the source is tributary.~~

~~(c) The place of diversion. If a public land survey has been made, location of diversion works shall be described to the nearest 40 acre subdivision. If not, it shall be described by reference to nearest local landmarks or other recorded surveys.~~

~~(d) The capacity of the diversion works and of the storage reservoir, if any, and the months in which water was used during the preceding calendar year. Those who maintain water measuring devices and keep monthly records of water diversions shall state the quantity of water diverted by months during the preceding calendar year. Others shall state the acreage of each crop irrigated, the average number of people served with water, the average number of stock watered, and the nature and extent of any other use during the preceding calendar year, or such other equivalent information tending to indicate the quantity of water used as may be prescribed by the board.~~

~~(e) The purpose of use.~~

~~(f) A general description of the area in which the water was used. If the water was used on an area within the 1/16 section containing the point of diversion, a statement to that effect will suffice; otherwise a description or sketch of the general area of use shall be given.~~

~~(g) The year in which the diversion was commenced as near as is known.~~

SEC. 3. Section 5103 is added to the Water Code to read:

5103. Each statement shall be typewritten or legibly written in ink on a form provided by the board and shall include such information as the board by rule may prescribe relating to

the identity and address of the diverter; the identity and location of the source; the location of the point of diversion; the capacity of the diversion works, including storage facilities, if any; the quantity of water diverted; acreages and crops irrigated, persons served, stock watered, nature and extent of other uses, or such other equivalent information tending to indicate the quantity of water used and the purposes of such uses, as may be prescribed by the board; description of place of use, the year in which the diversion was commenced; and the legal basis of the diversion.

SEC. 4. Section 5105.1 is added to the Water Code to read:

5105.1. Upon failure of any person to file a statement required by this part, the board may refuse to issue any permit, license, extension of time, or other entitlement requested by such a person until a statement has been filed.

SEC. 5. Section 5105.2 is added to the Water Code to read:

5105.2. Upon failure of any person to file a statement required by this part, the board may refuse to consider any protest filed by such a person against the approval of a permit application, pursuant to Section 1330 of this Code.

SEC. 6. Section 5107 of the Water Code is repealed.

~~5107. The making of any willful misstatement pursuant to this part is a misdemeanor punishable by a fine not exceeding five hundred dollars ($500) or by imprisonment in the county jail for not to exceed six months, or both.~~

SEC. 7. Section 5107 is added to the Water Code to read:

5107. Any person who fails to file a statement required by this part or who makes a willful misstatement shall be subject to a civil penalty not to exceed one thousand dollars ($1,000).

SEC. 8. Section 5108 of the Water Code is repealed.

~~5108. Statements filed pursuant to this part shall be for informational purposes only, and neither the failure to file a statement nor any error in the information filed shall have any legal consequences whatsoever other than those specified in this part.~~

SEC. 9. Section 5108 is added to the Water Code to read:

5108. The Attorney General, upon request of the board, shall petition the superior court to impose, assess, and recover the sums provided in Section 5107. Notwithstanding any provision of Section 818 of the Government Code, a public entity may be liable for sums imposed pursuant to this section.

SEC. 10. Section 5109 is added to the Water Code to read:

5109. The board shall provide reasonable notice of the provisions of this legislation pursuant to such rules as the board may prescribe.

An act to add Section 1012 to the Water Code, relating to the prescriptive acquisition of rights.

The people of the State of California do enact as follows:

SECTION 1. Section 1012 is added to the Water Code to read:

1012 (a) No right to use surface water or to use water in subterranean streams flowing through known and definite channels may be acquired by the adverse use, occupancy, or possession thereof, however long continued, as against any other water user, public or private, or as against the paramount interest of the people of the State as described in Sections 104 and 1052 of the Water Code.

(b) This section does not apply to any adverse use, occupancy, or possession of surface water, or of water in subterranean streams flowing through known and definite channels, initiated more than five years prior to the effective date of this section.

FOOTNOTES TO CHAPTER II

1. California Conservation Commission, Report 21-26 (1912).

2. E. Mead, Irrigation Institutions 199-202 (1903).

3. Id. at 190.

4. Cal. Water Code Section 5104 et seq. (West 1971).

5. Cal. Water Code Sections 106.5, 1203, 1462 (West 1971).

6. Cal. Water Code Section 10500 (West Supp. 1977).

7. Cal. Civil Code Section 1416 (West 1954).

8. W. Hutchins, The California Law of Water Rights 89 (1956).

9. Id. at 55-67.

10. See, e.g., Joslin v. Marin Municipal Water Dist., 67 Cal.2d 132, 429 P.2d 889, 60 Cal. Rptr. 377 (1967).

11. C. Palmer, The Story of the Kings River 24 (1955).

12. E. Mead, U. S. Dept. of Agriculture, Office of Experiment Stations, Bulletin No. 100, Report of Irrigation Investigation in California 277-282 (1901).

13. Id.

14. Id.

15. Barnes, Cal. State Dept. of Engineering, Bulletin No. 7, Use of Water from Kings River, California, 1918 107 (1920).

16. Id. at 108-13.

17. C. Kaupke, Forty Years on Kings River, 1917-1957 37 (1957).

18. Id. at 46.

19. See, e.g., Bains, Caves, and Margolis, Northern California's Water Industry 429-31 (1966).

20. Id. at 431.

21. Cal. Dept. of Public Works, Division of Engineering and Irrigation, Bulletin No. 21, Irrigation Districts in California 245 (1929).

22. E. Mead, Irrigation Institutions 198 (1903).

23. Los Angeles v. Glendale, 23 Cal.2d 68, 142 P.2d 289 (1943); Los Angeles v. San Fernando, 14 Cal.3d 199, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

24. Towner, "Administrative Adjudication of Water Rights", Proceedings -- University of Texas Water Law Conference 11, (1966); see also, Ferrier, "Administration of Water Rights in California", 44 Cal. L. Rev. 843, 845-48 (1956).

25. Eakin, "Adjudication Provisions Under the 1909 Water Code -- Survey of Case Law and Proposals for Legislative Amendment", 50 Ore. L Rev. 664, 695-97 (1971).

26. Cal. Water Code Section 2500 et seq. (West Supp. 1977).

27. California State Water Resources Control Board v. Ramelli (Third District, Civ. No. 16344, hearing granted, Oct. 18, 1978).

CHAPTER III. IMPROVING EFFICIENCY IN WATER USE

A. The Need for More Efficient Use of Water

California enters the last quarter of the twentieth century facing a growing scarcity of usable water. At present, the state's net demand for water exceeds net dependable supply by approximately 2.4 million acre-feet. Continued groundwater pumping in excess of natural recharge has provided most of the necessary supplemental water. By the year 2000, the Department of Water Resources projects that, even with the completion of the facilities currently planned by the Department, a substantial water deficit will exist. 1/

The development of new water supply projects has become an increasingly costly method of resolving the supply deficit problem. The Department of Water Resources has estimated that an enlargement of the Lake Berryessa facilities would cost $1.2 billion at 1977 prices and would produce a water supply at an annual cost of $109 an acre-foot. An enlargement of Lake Shasta facilities would cost $1.5 billion and would have a cost of $114 an acre-foot. Construction of the proposed Dos Rios project along the Eel River would cost $1.3 billion and would have a cost of $118 an acre-foot. 2/ By comparison, the 1978 Delta water charge imposed by the State Water Project on its water contractors to cover the unit costs of project water supply facilities was only $10.53 per acre-foot. 3/ According to a number of persons who testified before the Commission, ordinarily project water users will average the cost of new project water with the cost of pre-existing water supplies, and as costs rise the ability of water users to pay may increase as well.

The federal government also is re-examining its investment in California water supply development. A recent audit by the Department of the Interior of the federal Central Valley Project alleges that the project faces a

long-term fiscal deficit of $8.8 billion. In addition, the report asserts that completion of the Auburn-Folsom South Unit along the American River would add $886 million to this deficit. [4/] The Bureau of Reclamation contends that increases in hydroelectric power and water rates will offset this deficit. [5/] Such increased rates, though, would have to keep pace with rising construction costs. The 1960 feasibility report estimated that the total cost for Auburn would be $187 million. The Bureau of Reclamation currently estimates that project costs will be $1.264 billion. [6/]

Concern over the potential environmental costs of water supply development has further reduced the prospects for new water supply projects. In 1972, the California Legislature adopted the Wild and Scenic Rivers Act. The Act restricts the construction of water impoundment facilities, such as dams and reservoirs, on the Smith River and portions of the Klamath, Trinity, Scott, Salmon, Eel, Van Duzen and American Rivers. [7/] The Act further limits the construction of water diversion facilities unless the Secretary for Resources determines that the facilities are needed to supply domestic water for local communities and that such facilities would not adversely affect the free-flowing condition of the river. In addition, President Carter's recent Federal Water Policy Message states that environmental quality will be given equal emphasis with national economic development in the planning of federal water projects.

Growing construction costs and concern for environmental quality have made more difficult the new water supply development designed to meet the projected water deficit. Reforms in existing water rights law could encourage, however, more efficient use of water and assist in reducing this deficit. The Commission has therefore reviewed the impact of existing water rights

law on water use efficiency. It should be noted, however, that efforts to improve water use efficiency are not inconsistent with the development of new water supply projects. In fact, such projects may be easiest to justify where the existing stock of developed water is being used as efficiently as possible.

B. Water Use Efficiency: Alternative Definitions

Water use efficiency has different meanings to different people. The concept has at least two definitions: a physical definition and an economic definition. The physical definition of efficiency considers the amount of water lost to beneficial use from any particular application of water. The economic definition of efficiency considers the economic productivity of alternative uses of water.

1. A Physical Definition of Efficiency

The Department of Water Resources has adopted a detailed physical definition of efficiency applicable to agricultural use which considers the rates of evapotranspiration of applied water (ETAW) and the net demand for water within a hydrologic basin. ETAW is the amount of applied water evaporated from the plant's surface and from immediately adjacent surfaces and thus functions as a measure of consumptive use. Net basin demand is ETAW plus irrecoverable losses due to irrigation plus reusable return flows leaving the basin. Basin efficiency is determined by dividing the ETAW by net basin demand. 8/ Thus, where water usage in a basin allows relatively substantial irrecoverable losses and permits relatively large amounts of reusable return flows to leave the basin, application of the Department's efficiency formula would result in a low water use efficiency ratio.

The Department's formula treats as inefficient water usage in a basin where relatively large amounts of reusable return flows have left the basin.

Yet in the San Joaquin Basin, for example, such reusable return flows may benefit downstream users. In addition, the Department's formula assumes that the consumptive use of water remains constant given any particular crop. Consumptive use, however, may be subject to variation depending upon irrigation techniques. Because the Department's formula treats consumptive use as a constant, reductions in consumptive use would not necessarily enhance the water use efficiency ratio.

2. An Economic Definition of Efficiency

An alternative definition of water use efficiency considers the comparative productive value of the use of water within a region or in different regions.

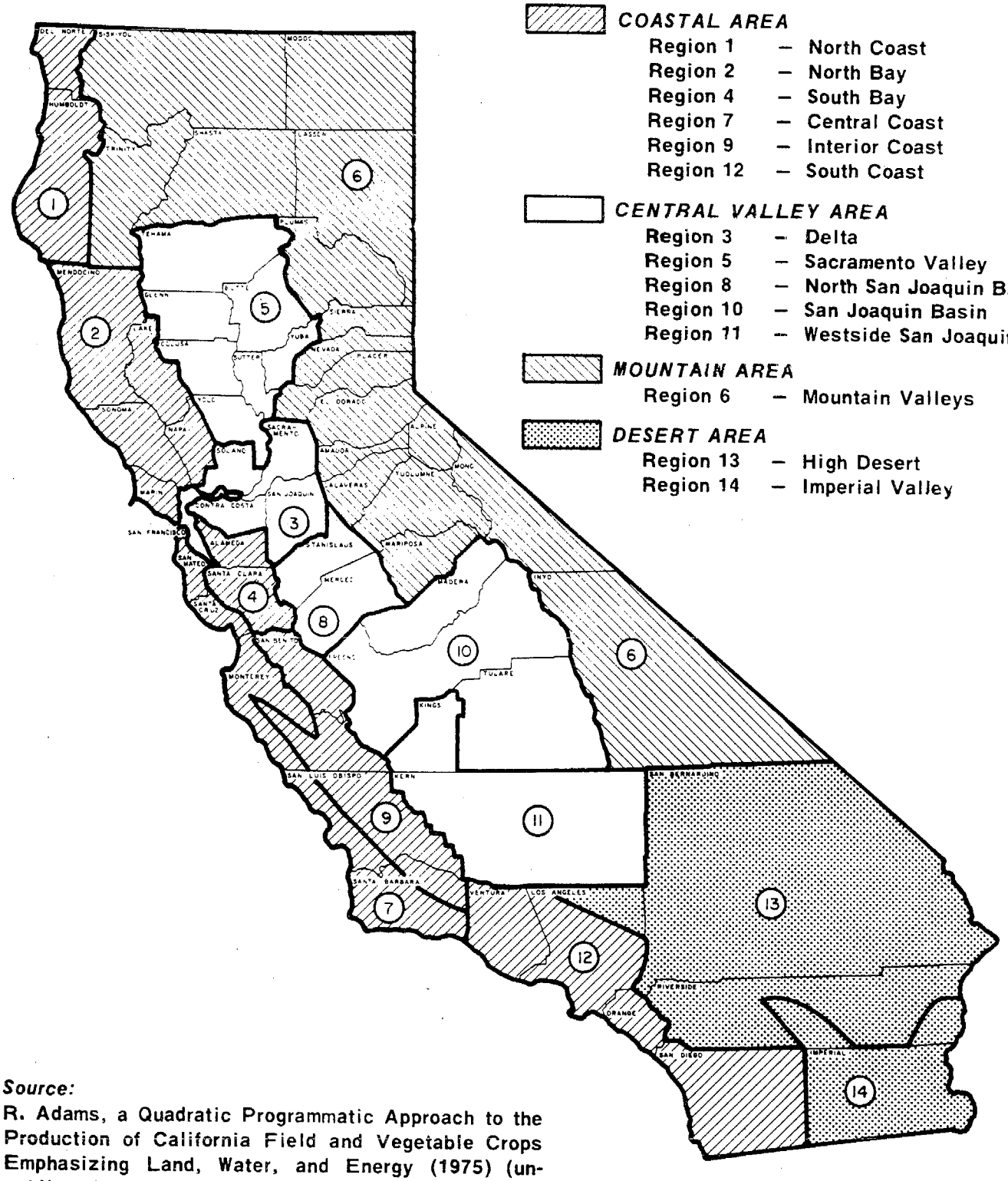
Economic theory suggests that a necessary condition of economic efficiency is that all users of a resource derive equal value from the last unit of the resource each user has consumed. 9/ The marginal value of water to a consumer is the value to that consumer of the last unit consumed. For any consumer, the marginal value will ordinarily decline as the quantity of water consumed increases or rise as the quantity consumed decreases. Thus, if the marginal value to consumer "A" of one acre-foot of water is $20, and the marginal value to consumer "B" is $10, then both parties would be better off if B sold A one acre-foot of water at some price between $10 and $20. Since B's consumption of water has decreased due to the sale, his marginal value for water will increase (perhaps to $11 an acre-foot). Similarly, since A's consumption has increased, his marginal value for water will decrease (perhaps to $19 an acre-foot). Economists have therefore concluded that the efficient allocation of water will require the eventual equalization of the marginal values of all water consumers through voluntary transfers.

Nevertheless current law requires that the transfer of water not impair existing rights held by third parties. Thus, water transfers may not be made where such exchanges would reduce return flow used by other persons. Absent some mechanism for compensation of the harmed third parties, transfers, in such situations, are limited to the consumptive usage of the transferring party.

Substantial variations do exist in water values among regions within the State. According to one economic study, the marginal value for water in Tehama, Glenn, Butte, Colusa, Sutter, Yuba, and Yolo Counties during 1976 was $22.81 an acre-foot while the marginal value in Madera, Fresno, and Tulare Counties was $55.94 an acre-foot. Under projected drought conditions, the marginal value was estimated to be $26.84 in the northern counties and at least $100 in the San Joaquin Valley counties. 10/

The federal water banking program has provided further evidence of the disparity in water values within the State. The water banking program, which was authorized under the Emergency Drought Act of 1977, established a temporary water transfer program for the purpose of minimizing losses resulting from the 1976-77 drought. In California, the Bureau of Reclamation administered the program primarily by purchasing water from Bureau water contractors along the Sacramento River and reselling the water to San Joaquin Valley water users. The Bureau purchased 46,665 acre-feet of water from seven sellers and sold 42,544 acre-feet of water to 27 buyers. The Bureau purchased water at prices ranging between $15.00 and $77.00 an acre-foot and sold it at prices ranging between $62.50 and $160.00 an acre-foot. The difference between purchase and sale prices was largely to cover the cost of conveyance of water from the point of purchase to the point of sale.

CALIFORNIA PRODUCTION AREAS AND REGIONS



Source:
R. Adams, a Quadratic Programmatic Approach to the Production of California Field and Vegetable Crops Emphasizing Land, Water, and Energy (1975) (unpublished Ph.D. thesis, in the Department of Agricultural Economics, University of California, Davis library).

TABLE I

Imputed Water Value [a/] per acre/foot (1978)

	Light rain	Drought	1976 (base year)
Region 5			
Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Yolo	$ 25.86	$ 26.84	$22.81
Region 3			
Solano, Sacramento, Contra Costa, San Joaquin	84.55	93.83	44.94
Region 8			
Stanislaus, Merced	60.04	65.62	23.54
Region 10			
Madera, Fresno, Tulare	100.00 [b/]	100.00 [b/]	55.94
Region 11			
Kings, Kern	89.41	94.28	25.63

a/ The values represent the minimum for which a farmer would sell or the maximum which he would pay.

b/ The values for this region under both scenarios considerably exceeded the $100 upper bound constraint. The upper bound chosen is imposed because of the inaccuracy of the linear production technology at extreme values.

Source: R. Howitt and W. Watson, "Efficiency and Equity in Allocating 1978 Agricultural Water Supplies" (Unpublished paper, University of California, Davis, Department of Agricultural Economics, 12/27/77).

C. Approaches To Improving Efficiency

1. The Regulatory Approach

The regulatory approach works to achieve efficiency by prohibiting or restricting particular behavior. Typically, a regulatory agency drafts standards and subsequently reviews and enforces compliance with those standards. The Commission has considered two proposals designed to improve water use efficiency by amending existing regulatory law.

a. Defining Reasonable Beneficial Use

Article 10, Section 2 of the California Constitution restricts all water use to the amount reasonably necessary for beneficial purposes. Neither the courts nor the Legislature have comprehensively defined this limitation. The courts have applied the constitutional provision on a case-by-case basis. The Legislature has selected particular, isolated uses, such as instream beneficial uses, for classification as beneficial uses. The National Water Commission expressed concern as to the ambiguity of this restriction and recommended that "the appropriation states should quantify 'beneficial need' and 'reasonable efficiency' for particular areas in order to reduce water waste." 11/

The Commission, after reviewing the benefits, difficulties and costs of attempting comprehensively to define reasonable beneficial use, has concluded that further clarification of the requirement should continue to be left for treatment by the courts on a case-by-case basis. Reasonable beneficial use varies substantially depending upon the region of use and hydrologic conditions. Therefore, any reasonable beneficial use standards adopted by the Legislature would be overly rigid.

Under certain older cases, the courts have granted very great weight to the local custom of water use in determining compliance with the reasonable

beneficial use requirement. [12/] The Commission does not believe that local custom should be determinative, but should merely be considered along with other appropriate factors in determining reasonable beneficial use.

b. Enforcement

The efficient allocation of any resource requires the development of a property rights system which ensures users of the resource reasonable certainty as to their rights. Enforcement of surface water rights is the primary method by which the Board provides protection for water users against unauthorized uses of water.

Currently, the Board has three methods for enforcing surface water rights. The Board may revoke a water rights permit or license upon violation of any term or condition by the water user. The Board may seek injunctive relief to halt unauthorized diversions where the diverter has no legal claim to the water. Finally, the Board may act to prevent any water user from engaging in the waste or unreasonable use of water. In practice, these enforcement tools have not been satisfactory.

First, the Board's revocation authority is an overly harsh remedy for minor violations of a permit or license. Because the remedy is often too extreme, it is rarely used. Second, injunctive actions to prevent unauthorized diversions commonly take the Board and the State Attorney General months to prepare and file. These delays may render preventive action meaningless where the irrigation season has ended. Finally, the Board's authority to prevent waste and unreasonable use is based on the vague language of Water Code Section 275. The section simply directs the Board to "take all appropriate proceedings or actions before executive, legislative, or judicial agencies" to prevent waste or unreasonable use. The meaning of "appropriate proceedings or actions" is not defined.

The Commission suggests that the Board be granted the authority to issue administrative cease and desist orders where a water user is making an unauthorized diversion or is violating a term or condition of his permit or license. The Board should also have the authority to obtain injunctive relief and civil penalties where a diverter has violated a valid cease and desist order. This additional authority is necessary to protect the rights of existing water users who may be injured by illegal diversions.

The Commission does not support granting the Board additional authority to prevent waste and unreasonable use under Water Code Section 275. The Commission believes it would be unfair to impose civil penalties against water users for violation of the reasonable beneficial use requirement given the requirement's vague and variable character.

The Commission further considered the Board's authority to enter the property of water users for investigation of unauthorized water diversions. The Commission concludes that current inspection authority should remain unchanged. During the 1976-77 drought the Board obtained a high level of voluntary cooperation from landowners.

2. The Market Approach

The market approach to water use efficiency is distinguishable from the regulatory approach in that the market approach stresses incentives for efficient water use while the regulatory approach restricts conduct inconsistent with efficient use. The Commission considered the following market approach proposals regarding water conservation and voluntary water transfers as steps towards greater efficiency.

a. Incentives For Water Conservation

1) Forfeiture

Under existing law, the forfeiture doctrine is a major obstacle to water conservation. The forfeiture doctrine threatens holders of appropriative rights with the loss of all or part of their rights where the right holder has not put the water to beneficial use. A pre-1914 appropriator may lose his use right after five years of nonuse. A person who has appropriated water under the Water Code or its predecessor, the Water Commission Act of 1913, may lose his right after three years of nonuse. As to post-1914 appropriators, it is unclear whether a water user automatically forfeits his right after three years of nonuse, or whether the Board must take affirmative action to revoke the permit. 13/

The forfeiture doctrine discourages water conservation because an appropriator who uses less water than his entitlement may lose his right to the extent of the nonuse. The doctrine thus deters conservation by encouraging an appropriator to use the full amount of the right. The Commission suggests modification of the doctrine to allow an appropriator to retain the full amount of the right where he has not used the full amount due to water conservation efforts.

The Commission further suggests adoption of a uniform forfeiture period of five years and that forfeiture of post-1914 appropriative rights occur automatically upon the lapse of the forfeiture period. The characteristics of forfeiture of post-1914 rights would then be consistent with those of pre-1914 rights.

2) Salvage Water

The current law regarding the appropriation of salvage water also discourages water conservation. Salvage water is new water introduced

into a watercourse that would not have been available for beneficial use but for the salvage effort. A diverter may, for example, salvage water by removing water consumptive plants from a stream; by retarding brush growth in a watershed, thus reducing transpiration losses; or by lining ditches so as to reduce losses to unusable groundwater basins.

Under existing California law, it is unclear whether a salvager must obtain a permit and license from the State Water Resources Control Board before appropriation of salvage water. In addition, it is unclear what priority a salvager receives after salvage and diversion. A salvager could receive a priority junior to senior users along the stream or a priority superior to all other users. If the salvager receives a junior priority, there would be much less incentive to conserve water because in time of shortage the senior users could claim the water the salvager has created.

Under existing administrative practice, the State Water Resources Control Board grants salvagers permit and license rights subject to claims by senior users. The Commission concludes that salvagers should be required to obtain a permit or license from the State Water Resources Control Board in order to appropriate salvage water. In addition, the Commission suggests that salvagers be granted a right to the water they have salvaged superior to all users along the stream. This rule would reverse the current disincentives towards salvage by ensuring that salvagers retain the benefits of the salvage efforts. The salvage effort, however, could not injure any lawful user of surface water or groundwater and could not unreasonably affect fish, wildlife, or other instream beneficial uses.

3) Water Use Charges

A third possible incentive mechanism for encouraging water conservation involves the imposition of water use charges on water rights. Such a charge

could be imposed on all water rights or imposed only on new rights. The charge might discourage excessive water use by raising the per unit cost of water. On the other hand, the charge would have to be tailored to the particular water demands of any region or use in order to affect consumption. The difficulty of fine-tuning the charge to meet local demands suggests serious administrative problems in implementation. The Commission recognizes that pump taxes can be effective local groundwater management tools and encourages their consideration. The Commission, however, does not urge the adoption of statewide user charges on water rights.

b. Encouraging Voluntary Transfers of Water Rights

A property rights system in water which permits voluntary transfers encourages the shift in resources from lower-value uses to higher-value uses. Where the transferring parties protect the interest of the third parties, such as users of return flow, by restricting the exchanged amounts to the seller's consumptive use or by providing compensation, water transfers may increase the productivity of the resource. The Commission recognizes that improvements in efficiency do not necessarily require major transfers of water on a permanent basis. Short-term transfers of water or water rights may be adequate to improve productivity. The Commission has therefore considered the following modest revisions in the law to enhance the transferability of water rights.

1) Ensuring the Security of the Right

One requirement of transferability is that the acquired water right be a certain and secure right. Lack of security may reduce investment in the resource by reducing the value of the right. One method of improving water

rights security that has been previously discussed is the use of the statutory adjudication mechanism. The following will consider other proposals to improve the security of existing rights.

a) The Sale and Distribution of Reclaimed Water

Advances in wastewater reclamation technology and increasingly stringent water quality standards have created an opportunity for an expanded market in treated effluent. Reclaimed water is already being used for irrigation, industrial and recreational purposes. In 1977, Governor Brown set, as a State goal, the addition of 400,000 acre-feet of reclaimed water by 1982.

The sale and distribution of this reclaimed water may raise water rights questions regarding the ownership of the resource. These problems will arise both prior to the treatment of the water and subsequent to its discharge. Prior to treatment, a waste water treatment facility may receive the waste water from local sanitation districts. These districts normally convey the water through a sewage collector system after it has been discharged by local municipal and industrial users. These local users receive their water from a municipal water supply system, a private water company, or through their own diversions. The water may be used on the basis of groundwater rights, surface water rights, or contract rights with the U.S. Bureau of Reclamation or the State Water Project. As between the owner of the waste water treatment facility and the water suppliers, it is unclear under existing law who may rightfully claim ownership of the treated effluent.

Parties have commonly settled such questions through private agreements. For example, the U.S. Bureau of Reclamation water supply contracts contain express provisions which retain for the Bureau the right to the return flow that has left the boundaries of the water contractor. In order

to encourage the sale and distribution of reclaimed waste water, it would be desirable to concentrate the ownership of the resource in one entity rather than in multiple entities, such as the water suppliers. The Commission therefore urges that, as between the owner of the waste water treatment facility and the water suppliers, the owner of the plant be granted the right to sell or distribute the reclaimed water unless otherwise provided by agreement.

The subsequent reuse of reclaimed water raises a different set of ownership issues. Commonly, downstream users will have obtained rights to the return flow that upstream users have discharged into the stream. Generally, upstream dischargers must respect the rights of downstream users to the return flow. [14/] California courts have created two major exceptions to this general rule of protection for downstream return flow users. First, where the upstream return flow producer releases return flow with the prior intention of subsequently recapturing the water, then the courts have allowed the upstream user to transfer the water right without considering the impact on downstream users. Second, where the water is imported water, that is, water foreign to the watershed, and is recaptured by the upstream user within his land or irrigation works, the upstream user may transfer the water right even to the detriment of the downstream users. [15/]

Thus, where the owner of a waste water treatment plant initially discharges treated effluent with the intent of recapturing the water, or where the source of the water is imported water and the water is recaptured within the plant boundaries or the boundaries of the district, the treatment plant owner may be able to market that water to the detriment of downstream users.

Given the substantial judicial consideration of downstream rights to return flow, the Commission concludes that no additional action is necessarily to modify existing law.

b) The Use of Reclaimed Water for Instream Beneficial Uses

One aspect of waste water reclamation that deserves particular attention is the possible use of reclaimed water to enhance instream beneficial uses. In San Diego County, the State Health Department, the San Diego County Health Department, the U.S. Fish and Wildlife Service, the State Department of Fish and Game, the State Department of Water Resources, the Regional Water Quality Control Board and the San Diego Region Water Reclamation Agency have been considering a proposal to create a "live stream" with 100 percent reclaimed water from the Santee reclamation facility. Such a program would enhance a fifteen to twenty mile stretch of the San Diego River.

The proposal raises particular water rights problems which remain unresolved under existing law. First, nothing under existing water rights law would prevent water rights applicants from filing for a permit to appropriate the discharged reclaimed water. Second, prior appropriators holding older rights might claim the discharged water as part of their prior rights to the stream. Many pre-1914 appropriators claim amounts greatly in excess of the natural flow of the stream. Therefore an effort, such as the one being planned in San Diego County, to improve a stream system by introducing additional flow may fail if past and prospective appropriators can successfully divert the newly introduced water. The Commission suggests that where a return flow producer introduces new water into a stream system for the purpose of maintaining or enhancing instream beneficial uses, the

Board should not be permitted to grant any permit or license to appropriate the new water and that the existing water right holders along the stream be denied the right to claim such water under their existing rights.

c) Transfers and the Risk of Forfeiture

A common fear involving water transfers is the belief that a water user who transfers his right on a temporary basis may lose that right due to the forfeiture doctrine. Proponents of water transfers have argued that the sale or transfer of a water right might be considered evidence that the holder of the right has no reasonable beneficial use for the water. Thus, the sellers might risk forfeiture of the right if they transfer the resource. 16/

This view has not been the law in California. While the nonuse of water may trigger the forfeiture requirement, the sale of the water right for reasonable beneficial use does not constitute such a nonuse. 17/ Nevertheless, the perception that a water user may forfeit his water right due to a temporary transfer suggests that an affirmative statement to clarify existing law is desirable. The Commission therefore urges the enactment of legislation explicitly stating that the transfer or exchange of water or water rights, in itself, should not be considered as evidence of waste and unreasonable use under Article 10, Section 2 of the California Constitution and that such a transfer or exchange should not result in forfeiture.

2) Ensuring the Flexibility of the Right

In addition to security, a market system requires property rights with sufficient flexibility to allow the transfer of the resource from lesser to higher value uses. The Commission suggests the following proposals to increase the flexibility of existing water rights.

a) Revisions Regarding Change of Place of Use, Point of Diversion or Purpose of Use

Under existing law, a holder of an appropriative right must petition the State Water Resources Control Board for the approval of any water rights transfer involving a change of place of use, point of diversion or purpose of use. A water rights transfer may reduce the return flow available to downstream users, thus impairing downstream rights to the flow. Currently, a prospective seller must show that "the change will not operate to the injury of any legal user of the water involved." [18/] If there is any injury to a legal user, regardless of how small such an injury might be, the Board must deny the petition for change.

The Commission recognizes that a common problem with water rights transfers is the difficulty of determining the impact of the transfer on third party users prior to the transfer. The Commission further recognizes that a showing of minor third party injury may preclude an economically productive transfer. The Commission therefore suggests that the Board be granted the authority to approve trial transfers for a specified period of time where third party injury is difficult to determine in advance of the transfer. After the trial transfer has occurred and the scope of injury has been determined, the Board should be authorized to approve long-term transfers where any change would not result in "substantial injury" to any other water user. Any water user whose injury was less than "substantial" would retain the right to an action for damages.

In addition, the Commission recognizes that many water rights holders only intend to transfer their rights for temporary periods. Currently, there does not exist any mechanism for the approval of temporary changes in place of use, point of diversion or purpose of use. The Commission suggests the

adoption of an expedited, temporary transfer process in order to encourage short-term exchanges.

b) Restriction on the Sale of District Water

Most general and special district acts restrict the sale of district water outside of district boundaries to "surplus" water, water not necessary for use within the district. [19/] These export provisions reduce the district's ability to transfer water.

In the Sacramento Valley, for example, the applied water requirement for rice is approximately 8.0 acre-feet per acre with an evapotranspiration rate of approximately 3.3 acre-feet. By fallowing land, introducing water conservation or encouraging the use of less water consumptive crops, a Sacramento Valley water district might be able to provide additional water supplies for sale to buyers outside of the district. Given the relatively higher productive value of water in the San Joaquin Valley, sales to San Joaquin Valley water users might increase the total productivity of the water use. Yet, the export provisions within existing general and special district acts may require the district to meet all water requests within the district, prior to any export of water. The provisions would deny the selling district the gains from the sale and the buying district the benefits of additional water.

The Commission recognizes that the decision to export should be a local one. The governing bodies of local districts should retain their authority to distribute water in the manner which they feel is most beneficial to local needs. On the other hand, the Commission notes that the export restrictions within current district law may encourage the inefficient use of water. Therefore, the Commission suggests the removal of these export provisions from all general and special district acts.

c) Restrictions within Water Code Sections 1392 and 1629

Sections 1392 and 1629 of the Water Code restrict the valuation of appropriative rights held under permit or license for purposes of sale or condemnation by public entities. Under these sections, valuation of the right may not be "in excess of the actual amount paid to the state" for the permit or the license. 20/ If enforced, these sections would restrict the sale or condemnation price of transferred appropriative rights to the cost of permit or license fees and exclude consideration of fair market value. Such restrictions would substantially impair transfers by eliminating the incentive for trade.

There exists no reported judicial consideration of these two sections of the Water Code. In practice, their restrictions on sale and condemnation prices have not been enforced. The Commission suggests that these provisions be repealed.

3. Administrative Reforms

Board administration of the surface water rights system has been characterized by substantial delays in the water rights application process. The average permit applicant waits approximately three years for the Board to process an application. Recent administrative reforms on the part of the Board have reduced the backlog of unprocessed permit applications, but even with such efforts, over 800 applications remain unprocessed.

The Legislative Analyst recommended that the Commission study changes in the law to streamline the water rights application process. 21/ In response to this request, the Commission considered two proposals: a proposal to certify small, unauthorized diversions and a proposal to revise the Board's investigation procedure to encourage the private settlement of protested applications.

Under the certification proposal, the Board would certify small, unauthorized diversions under a procedure similar to the current law regarding stockpond certification. The stockpond legislation granted water rights to certain stockpond diverters. [22/] Board action in issuing these rights was nondiscretionary. Adoption of the certification proposal would increase the Board's knowledge of surface diversions, thus improving the Board's administration of the surface water rights system. On the other hand, the proposal would reward illegal diverters and could potentially harm other legal users of the water. In view of these latter factors, the Commission suggests that no such certification proposal be adopted.

The Commission does suggest a modest revision in the Board's investigation procedure which will encourage the private settlement of protested applications. Under current practice, the Board does not conduct a field investigation of all permit applications. Board staff have indicated that if the Board routinely conducted such an investigation, there would exist a much higher probability that the protestants and the applicants would settle their differences without resorting to a time-consuming administrative hearing. Where the protestants and the applicant have privately settled their differences, the Board can treat the permit application as being unprotested. Unprotested applications are processed by the Board within four to six months of the receipt of application.

The Commission therefore suggests that the Board conduct mandatory field investigations for permit applications and petitions for change in place of use, point of diversion, and purpose of use involving minor amounts of water. The Board staff estimates that this change would produce a manpower savings of about 1.4 man years per year and an annual monetary savings of approximately $50,000.

In addition to these two proposals, the Commission also considered recommendations regarding instream protection which may have the effect of expediting the water rights application process. The following chapter on instream protection will discuss these recommendations.

D. Recommendations

1. The Commission recommends that local custom be considered only as one factor in determining reasonable beneficial use under Article 10, Section 2 of the California Constitution.

2. The Commission recommends that the Board be granted the authority to issue administrative cease and desist orders where a water user is making an unauthorized diversion or is violating a term or condition of a permit or license. The Board should have the authority to enforce these orders by way of injunctive relief and civil penalties.

3. The Commission recommends that the forfeiture doctrine be modified to allow an appropriator to retain the full amount of his right even where he has not used the full amount due to water conservation efforts. The Commission further recommends the adoption of a uniform forfeiture period of five years for all appropriators and that forfeiture of the right should automatically occur upon the lapse of the forfeiture period.

4. The Commission recommends that an appropriator of salvage water be required to obtain a permit and license from the Board for the salvage water. The Commission further recommends that the salvage water right be given a priority superior to all other water rights in the watercourse where such salvage efforts would not injure any lawful user of surface water or groundwater and would not unreasonably affect fish, wildlife, or other instream beneficial uses.

5. The Commission recommends that, as to disputes between the owner of the wastewater treatment plant and the water supplier, the owner of the plant be granted the right to the reclaimed water unless otherwise provided by agreement.

6. The Commission recommends that where a producer of return flow introduces new water into a stream system for the purpose of maintaining or enhancing instream beneficial uses, the Board should be precluded from issuing permits or licenses for such water and existing water rights holders should be denied the right to use such water under their rights.

7. The Commission recommends that the transfer of a water right, in itself, should not be considered as evidence of waste and unreasonable use under Article 10, Section 2 of the California Constitution and that such a transfer, in itself, should not result in the forfeiture of the right.

8. The Commission recommends that the Board be authorized to approve trial transfers of appropriative rights where injury to other water users would be difficult to determine in advance of the transfer. The Commission further recommends that the Board be authorized to approve subsequent long-term transfers of appropriative rights where any change would not result in "substantial injury" to any other water user.

9. The Commission recommends the adoption of a temporary transfer procedure in order to encourage short-term water transfers.

10. The Commission recommends the repeal of the provisions in district law which restrict the sale of water outside of district boundaries to "surplus" water.

11. The Commission recommends the repeal of Water Code Sections 1392 and 1629 which restrict the valuation of permit and license rights.

12. The Commission recommends the adoption of a mandatory field investigation procedure for all permit applications and changes in place of use, point of diversion, and purpose of use involving minor amounts of water.

E. Text of Proposed Legislation

An act to add Section 100.5 to the Water Code, relating to local custom.

The people of the State of California do enact as follows:

SECTION 1. Section 100.5 is added to the Water Code to read:

100.5. It is hereby declared to be the established policy of this State that conformity of a use, method of use or method of diversion of water with local custom should not be determinative of its reasonableness, but may be considered as one factor to be weighed in the determination of the reasonableness of the use, method of use, or method of diversion of water, within the meaning of California Constitution, Article 10, Section 2.

An act to add Chapter 12 (commencing with Section 1825) to Part 2 of Division 2 of the Water Code, relating to the enforcement of water rights.

The people of the State of California do enact as follows:

SECTION 1. Chapter 12 (commencing with Section 1825) is added to Part 2 of Division 2 of the Water Code to read:

CHAPTER 12

Article 1. Policy

1825. It is the intent of the Legislature that the State should take vigorous action to enforce the terms and conditions of existing permits and licenses to appropriate water and to prevent the unlawful diversion of water.

Article 2. Cease and Desist Orders

1830. When the board determines that any person is diverting and using water subject to the provisions of Division 2 (commencing with Section 1000) of the Water Code other than as authorized in this division, the board may issue a preliminary order to any such person to cease and desist from such diversion and use. The preliminary cease and desist order shall require such person to comply forthwith or in accordance with a time schedule set by the board. The board may issue a preliminary cease and desist order only after notice and an opportunity for hearing pursuant to Section 1834.

1831. When the board determines that any person holding a permit or license to appropriate water pursuant to Division 2 (commencing with Section 1000) of this code is violating any term or condition of the permit or license, the board may issue a preliminary order to any such person to cease and desist from such

violation. The preliminary cease and desist order shall require such person to comply forthwith or in accordance with a time schedule set by the board. The board may issue a preliminary cease and desist order only after notice and an opportunity for hearing pursuant to Section 1834.

1832. Cease and desist orders of the board shall be effective upon the issuance thereof. The board may, after notice and opportunity for hearing, upon its own motion or upon receipt of an application from an aggrieved person, modify, revoke, or stay in whole or in part any preliminary order issued pursuant to this chapter. Copies of any cease and desist order shall be served personally or by registered mail on the person being charged and shall be sent to any other person who appeared at the hearing and requested a copy.

1833. At any time subsequent to the issuance of a preliminary cease and desist order or any modification thereof, the board may issue a final cease and desist order. No notice or opportunity for hearing is required for issuance of a final cease and desist order.

1834. (a) In the event that an unauthorized diversion or violation of a term or condition of a permit or license is occurring or threatening to occur, the board shall give notice in writing to the person allegedly engaged in the unauthorized diversion or the violation of the term or condition. Such notice shall contain a statement of facts and information which would tend to show the proscribed action, and notification of the requirements of Subdivision (b).

(b) Unless a written request for a hearing signed by or on behalf of the notified party is delivered to or received by mail by the board within 15 days after receipt of the notice, the board may adopt the proposed preliminary cease and desist order without a hearing.

1835. For purposes of this chapter, person shall have the same meaning as in Section 19 of this code and shall include any city, county, district, the State, or any department or agency thereof, and the United States to the extent authorized by law.

1836. Nothing within this chapter shall preclude the board from issuing any order or taking any other action authorized pursuant to Sections 275 and 1052 of this code.

Article 3. Judicial Review

1840. (a) Any aggrieved person may file a petition for a writ of mandate for review of any preliminary cease and desist order before such order becomes final.

(b) Within 30 days after the receipt of a copy of the final cease and desist order issued by the board, any aggrieved person may file a petition for a writ of mandate for review of the order.

(c) The evidence before the court shall consist of the record before the board. The court may permit the introduction of additional evidence upon a showing of good cause. The court shall determine good cause by considering whether the evidence could have been produced, with reasonable diligence,

at the prior administrative proceeding or whether the evidence was improperly excluded. In every case, the court shall exercise its independent judgment on the evidence.

(d) The court may stay the operation of any cease and desist order only after notice and an opportunity for the board to be heard by the court. Any such stay may be imposed or continued only if it is not against the public interest.

(e) Except as otherwise provided in this section, the provisions of Section 1094.5 of the Code of Civil Procedure shall govern proceedings pursuant to this section.

Article 4. Enforcement

1841. (a) Upon failure of any person to comply with any valid cease and desist order issued by the board pursuant to this chapter, the Attorney General, upon the request of the board, shall petition the superior court for the issuance of such prohibitory or mandatory injunctive relief as may be warranted by way of temporary restraining order, preliminary injunction, or permanent injunction.

(b) Any person who violates a valid cease and desist order issued pursuant to this chapter may be liable for a sum not to exceed five hundred dollars ($500) for each day in which such violation occurs. Notwithstanding any provision of Section 818 of the Government Code, a public entity may be liable for sums imposed pursuant to this subdivision.

(c) The Attorney General, upon request of the board, shall petition the superior court to impose, assess, and recover such sums. In determining the appropriate amount, the court shall

take into consideration all relevant circumstances, including but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, and the corrective action, if any, taken by the violator.

(d) The evidence before the court shall consist of the record before the board and any evidence of a cease and desist order violation. The court may permit the introduction of additional evidence upon a showing of good cause. The court shall determine good cause by considering whether the evidence could have been produced, with reasonable diligence, at the prior administrative hearing or whether the evidence was improperly excluded. In every case, the court shall exercise its independent judgment on the evidence.

(e) All funds recovered pursuant to this section shall be transferred to the General Fund of the State.

Article 5. Private Litigation

1845. Any factual or legal determinations made pursuant to a valid, final cease and desist order shall be conclusive and shall preclude any party to the order from raising such issues in any subsequent administrative or judicial proceeding.

1846. Nothing in this chapter shall be construed to limit or abridge the right of any person to bring an action for equitable or legal relief for harm caused by an unauthorized diversion or a violation of a term or condition of a permit or

license. No such person shall be required to exhaust any administrative remedy provided by this chapter before bringing such an action.

An act to add Section 1011 to the Water Code relating to water conservation.

The people of the State of California do enact as follows:

SECTION 1. Section 1011 is added to the Water Code to read:

1011. When any person entitled to the use of water under an appropriative right fails to use all or any part of the water because of water conservation efforts, any cessation or reduction in the use of such appropriated water shall be deemed equivalent to a reasonable beneficial use of water to the extent of such cessation or reduction in use. No forfeiture of the appropriative right to the water conserved shall occur upon the lapse of the forfeiture period applicable to water appropriated pursuant to the Water Commission Act or this code or the forfeiture period applicable to water appropriated prior to December 19, 1914.

The board may require that any user of water who seeks the benefit of this section file periodic reports describing the extent and amount of the reduction in water use due to water conservation efforts. To the maximum extent possible, such reports shall be made a part of other reports required by the board relating to the use of water. Failure to file such reports shall deprive the user of water of the benefits of this section.

For purposes of this section, the term "water conservation" shall mean the use of less water to accomplish the same purpose or purposes of use allowed under the existing appropriative right. Where water appropriated for irrigation pur-

poses is not used by reason of land fallowing or crop rotation, the reduced usage shall be deemed water conservation for purposes of this section.

An act to amend Section 1241 of the Water Code, relating to the forfeiture of water rights.

The people of the State of California do enact as follows:

SECTION 1. Section 1241 of the Water Code is amended to read:

1241. When the person entitled to the use of water fails ~~to beneficially~~ to use beneficially all or any part of the water claimed by him, for which a right of use has vested, for the purpose for which it was appropriated or adjudicated, for a period of ~~three~~ five years, such unused water reverts to the public and shall be regarded as unappropriated public water. Such reversion shall automatically occur upon the lapse of the five-year period.

An act to add Article 3.5 (commencing with Section 1233) to Chapter 1 of Part 2 of Division 2 of the Water Code, relating to salvage water.

The people of the State of California do enact as follows:

SECTION 1. Article 3.5 (commencing with Section 1233) is added to Chapter 1 of Part 2 of Division 2 of the Water Code to read:

Article 3.5 Salvage Water

1233. Salvage water shall mean any water that a person has added to the watercourse that would otherwise have not been available for beneficial use. The board shall recognize salvage water only where the salvage efforts would not injure any lawful user of surface water or groundwater and would not unreasonably affect fish, wildlife, or other instream beneficial uses.

1234. The person making salvage water available shall, for three years from the date the salvage water becomes available, have the exclusive right to appropriate and use such water. Salvage water must be appropriated pursuant to Part 2 (commencing with Section 1200) of Division 2 of the Water Code. The person seeking to appropriate such water shall carry the burden of proving that the salvage effort makes additional water available.

1235. The board may require, as a condition of the permit or license, that an appropriator of salvage water file periodic reports describing the extent and amount of the water made available due to the appropriator's salvage efforts. To the maximum extent possible, such reports shall be made a part of other reports required by the board relating to the use of water.

1236. This article shall not be construed to affect the rights of any person making a beneficial use of salvage water prior to the effective date of this legislation.

1237. For purposes of this article, person shall have the same meaning as in Section 19 of the Water Code and shall include any city, county, district, the State, or any department or agency thereof, and the United States to the extent authorized by law.

[Comment: Salvage water consists of water introduced into a stream or added to a water supply due to human efforts that would otherwise not have been available for beneficial use. Salvage water may occur due to the removal of water consumptive plants, brush clearance, or the lining of porous channels or ditches. Salvage water does not include return flow. Return flow consists of water which, having been appropriated or used, flows back into a stream, lake or other body of water and is made available for beneficial use.

Existing law grants the salvager the right to the water he has made available due to the salvage effort. The salvager would retain the superior right to the salvage water regardless of the date of the salvager's water rights application.]

An act to amend Sections 22259, 31023, 35425, and 55336 of, to add Sections 109, 1244, and Article 1.5 (commencing with Section 1204) to Chapter 1 of Part 2 of Division 2 and Chapter 10.5 (commencing with Section 1725) to Part 2 of Division 2, to repeal Sections 1392, 1629, 22261, 35427, and to repeal and add Section 71612 of the Water Code, relating to efficiency in water use.

The people of the State of California do enact as follows:

SECTION 1. Section 109 is added to the Water Code to read:

109. The Legislature hereby finds and declares that the growing water needs of the State require the use of water in a more efficient manner and that the efficient use of water requires greater certainty in the definition of property rights to the use of water and greater transferability of such rights. It is hereby declared to be the established policy of this State to encourage the voluntary transfer of water and water rights where consistent with the public welfare of the place of export and the place of import.

SEC. 2. Article 1.5 (commencing with Section 1204) is added to Chapter 1 of Part 2 of Division 2 of the Water Code to read:

Article 1.5 Treated Wastewater

1204. The owner of a wastewater treatment plant shall hold the exclusive right to the treated wastewater as against anyone who has supplied the water discharged into the wastewater collection and treatment system, including a person using water under a water service contract, unless otherwise provided by agreement.

Nothing in this article shall affect the treatment plant owner's obligations to any legal user of the discharged treated wastewater.

Nothing in this article is intended to interfere with the regulatory authority of the board or any California Regional Water Quality Control Board under Division 7 of this code.

1205. The owner of any wastewater treatment plant may, in the name of the record owner of a permit or license, petition the board for a change in the point of diversion or rediversion, place of use, or purpose of use from that specified in such entitlement, or for a change in point of discharge, where and to the extent water under such entitlement contributes to such discharge; but such change may be made only upon the permission of the board. The board shall review such changes pursuant to the provisions of Chapter 10 (commencing with Section 1700) of Part 2 of Division 2 of this code.

1206. The board shall not grant any permit or license to any person other than the treated wastewater producer for the appropriation of treated wastewater where the producer has introduced such water into the watercourse with the prior intention of maintaining or enhancing fishery, wildlife, recreational, or other instream beneficial uses. Holders of existing water rights may not use or claim such water.

SEC. 3. Section 1244 is added to the Water Code to read:

1244. The sale, lease, exchange or transfer of water or water rights, in itself, shall not constitute evidence of waste or unreasonable use, unreasonable method of use, or unreasonable method of diversion and shall not affect any determination of forfeiture applicable to water appropriated pursuant to the Water Commission Act or this code or water appropriated prior to December 19, 1914.

This section does not constitute a change in, but is declaratory of, the existing law.

SEC. 4. Section 1392 of the Water Code is repealed.

1392. ~~Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division, or for any rights granted or acquired under the provisions of this division, in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provision of this division.~~

SEC. 5. Section 1629 of the Water Code is repealed.

1629. ~~Every licensee, if he accepts a license, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division, or for any rights granted or acquired under the provisions of this division, in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division.~~

SEC. 6. Chapter 10.5 is added to the Water Code to read:

CHAPTER 10.5 Change of Point of Diversion, Place of Use, or Purpose of Use Involving the Transfer of Water

Article 1. Temporary Changes

1725. A permittee or licensee may temporarily change the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights where such a transfer would only involve the amount of water consumptively

used by the permittee or licensee, would not injure any legal user of the water, and would not unreasonably affect fish, wildlife, or other instream beneficial uses.

1726. The permittee or licensee must notify the board of the temporary change. The notice shall contain information indicating the amount of water consumptively used by the permittee or licensee, the amount of water proposed for transfer, the parties involved in the transfer and any other information the board may by rule prescribe.

1727. The proposed temporary change shall be effective within 30 days after the receipt of the notification by the board unless the board, in a written response, objects to the change.

1728. Where the board has objected to a proposed temporary change, the permittee or licensee may only obtain approval of such a change upon compliance with the requirements of Chapter 10 (commencing with Section 1700) of the Water Code.

1729. For the purposes of this article a temporary change shall mean any change of point of diversion, place of use or purpose of use involving a transfer or exchange of water or water rights for a period of one year or less.

1730. Where the board does not object to the proposed temporary change under Section 1727, such a change shall be exempt from the requirements of Division 13 (commencing with Section 2100) of the Public Resources Code.

Article 2. Changes Involving Trial Transfers

1740. The board, after providing notice and opportunity for a hearing, may approve a petition for a trial transfer of water or water rights involving a change of point of diversion, place of use, or purpose of use. The board, in approving such a petition, must conclude, on the basis of available evidence, that substantial injury to any legal user of water is unlikely to occur, that such a transfer would not unreasonably affect fish, wildlife, or other instream beneficial uses, but that the precise effect of the transfer on other legal users or instream beneficial use is difficult to determine in advance of such a transfer. A trial transfer shall be for a period not to exceed one year.

1741. The board may modify or revoke a trial transfer, after providing notice and opportunity for a hearing, where it finds that the trial transfer will result in substantial injury to any legal user of water.

1742. The board may consider a petition for a long-term transfer of water or water rights involving a change of point of diversion, place of use, or purpose of use where the board has previously approved a trial transfer involving the same or similar changes pursuant to Section 1740. A long-term transfer shall be for any period in excess of one year.

1743. The board, after providing notice and opportunity for a hearing, may approve such a petition for a long-term transfer where the change would not result in substantial injury

to any legal user of water and would not unreasonably affect fish, wildlife, or other instream beneficial uses.

1744. No court may grant injunctive relief in any proceeding against the petitioner or the board to prevent the transfer or exchange of water or water rights where the board has approved a trial transfer or a long-term transfer pursuant to this article. The remedy of any protestant or other harmed party shall be restricted to an action for damages against the petitioner for injury resulting from such transfer or exchange.

1745. Nothing in this section shall prevent a protestant or any other party from filing a petition for a writ of mandate regarding the validity of the board's action pursuant to Section 1705.5.

Article 3. Transfer of Decreed Rights

1746. Any water right determined under a court decree issued pursuant to Chapter 3 (commencing with Section 2500) of Part 3 of Division 2 of this code subsequent to the enactment of this legislation shall be transferable pursuant to the provisions of chapters 10 and 10.5 of this code. The court having the appropriate jurisdiction over the decreed rights shall enter a supplemental decree modifying any rights involved upon motion of the board or any interested party.

SEC. 7. Section 22259 of the Water Code is amended to read:

22259. If its board deems it to be for the best interests of the district, a district may enter into a contract for the lease or sale of any ~~surplus~~ water or ~~use of~~

~~surplus~~ water right ~~not then necessary for use within the district~~ for use either within or without the district.

[Comment: This section applies to irrigation districts. As of 1973 there were 105 irrigation districts.]

SEC. 8. Section 22261 of the Water Code is repealed.

22261. ~~Nothing in this article authorizes the sale of any water right.~~

[This section applies to irrigation districts.]

SEC. 9. Section 31023 of the Water Code is amended to read:

31023. A district may sell water or the use thereof for any useful purpose ~~and whenever there is a surplus, dispose of the surplus to municipalities, public agencies, or consumers located without the district~~ within or without the district.

[Comment: This section applies to county water districts. As of 1973 there were 194 county water districts.]

SEC. 10. Section 35425 of the Water Code is amended to read:

35425. If its board deems it to be for the best interests of the district, a district may enter into a contract for the lease, sale, or use of any ~~surplus~~ water or water right ~~not then necessary for use within the district~~ for use either within or without the district.

[Comment: This section applies to California water districts. As of 1973 there were 160 California water districts.]

SEC. 11. Section 35427 of the Water Code is repealed.

35427. ~~Nothing in this article authorizes the sale of any water right.~~

[Comment: This section applies to California water districts.]

SEC. 12. Section 55336 of the Water Code is amended to read:

55336. The district may sell ~~surplus~~ water to any person, firm, public or private corporation, or public agency, or other consumer ~~outside the district when the governing body finds that the district has a surplus of water above that which is required by the consumers within the district~~ within or without the district.

[Comment: This section applies to county water works districts. As of 1973 there were 90 county water works districts.]

SEC. 13. Section 71612 of the Water Code is repealed.

~~71612. Whenever the board finds that there is a surplus of water above that which may be required by consumers within the district, the district may sell or otherwise dispose of such surplus water to any persons, public corporations or agencies, or other consumers.~~

[Comment: This section applies to municipal water districts. As of 1973 there were 49 municipal water districts.]

SEC. 14. Section 71612 of the Water Code is added to read:

71612. If its board deems it to be for the best interests of the district, a district may sell or otherwise

dispose of water to any persons, public corporations or agencies, or other consumers outside of the district.

[Comment: This section applies to municipal water districts.

The above revisions only affect the general district acts involving irrigation districts, county water districts, California water districts, county water works districts, and municipal water districts.

The Commission recommends, in addition, that all special district acts containing similar restrictions on the transfer of water or water rights outside of the district boundaries be amended to delete such restrictions.]

An act to add Article 1.5 (commencing with Section 1343) to Chapter 5 of Part 2 of Division 2, and Sections 1704.1, 1704.2, 1704.3 and 1704.4, to the Water Code, relating to minor water applications and petitions.

The people of the State of California do enact as follows:

SECTION 1. Article 1.5 (commencing with Section 1343) is added to Part 2 of Division 2 of the Water Code to read:

Article 1.5. Minor Protested Applications Procedure

1343. The board's Division of Water Rights shall conduct a field investigation and prepare a staff analysis of all minor protested applications. The division shall send the staff analysis by registered mail to the applicant and to any protestant.

1344. Unless the board's Division of Water Rights receives a written request for a hearing from the applicant or any protestant within 30 days after the date of mailing, the board may act on the minor application without a hearing.

1345. A request for a hearing shall specify the issues unresolved among the parties and the board shall restrict any hearing to consideration of such unresolved issues.

1346. For purposes of this article, a minor application shall mean any application which does not involve direct diversions in excess of 3 cubic-feet per second or storage in excess of 200 acre-feet per year.

SEC. 2. Sections 1704.1, 1704.2, 1704.3 and 1704.4 are added to the Water Code to read:

1704.1. The board's Division of Water Rights shall conduct a field investigation and prepare a staff analysis of

all minor protested petitions for change. The division shall send the staff analysis by registered mail to the petitioner and to any protestant.

1704.2. Unless the board's Division of Water Rights receives a written request for a hearing from any protestant within 30 days after the date of mailing, the board may act on the minor petition for change without a hearing.

1704.3. A request for a hearing shall specify the issues unresolved among the parties and the board shall restrict any hearing to consideration of such unresolved issues.

1704.4. For purposes of this article a minor petition for change shall mean any petition which does not involve direct diversions in excess of 3 cubic-feet per second or storage in excess of 200 acre-feet per year.

FOOTNOTES TO CHAPTER III

1. Cal. Dept. of Water Resources, Bull. 76 Delta Water Facilities (July 1978); U.S. Comptroller General, California Drought of 1976 and 1977--Extent, Damage, and Governmental Response 61 (1977).

2. Cal. Dept. of Water Resources, Comparative Unit Costs of Dry Period Yield from Various Northern California Projects (June 17, 1977) (hand-out material used at technical briefing on Delta Alternatives).

3. Cal. Dept. of Water Resources, Bull. No. 132-77, The California State Water Project - 1976 Activities and Future Management Plans 189 (1977).

4. U.S. Dept. of the Interior, Office of Audit and Investigation, Review of the Central Valley Project; Bureau of Reclamation 77 (1978).

5. The Central Valley Project Audit Report: Hearings Before the California Water Commission 4 (April 7, 1978) (Statement of Billy E. Martin, Regional Director, Mid-Pacific Region, U. S. Bureau of Reclamation); see also W. Wieking, "Financing the Central Valley Project", Western Water, March-April 1978, at 7.

6. U.S. Dept. of the Interior, supra note 4, at 74-75.

7. "It is the intent of the Legislature, with respect to the Eel River and its tributaries, that after an initial period of 12 years following the effective date of this chapter, the Department of Water Resources shall report to the Legislature as to the need for water supply and flood control projects on the Eel River and its tributaries, and the Legislature shall hold public hearings to determine whether legislation should be enacted to delete all or any segment of the river from the system." Cal. Pub. Res. Code, Section 5093.54(d) (West Supp. 1978).

8. Cal. Dept. of Water Resources, Bull. No. 198, Water Conservation in California 57 (1976).

9. J. Hirshleifer, J. DeHaven, and J. Milliman, Water Supply: Economics, Technology, and Policy 38 (1960).

10. R. Howitt and W. Watson, Efficiency and Equity in Allocating 1978 Agriculture Water Supplies 13 (Unpublished paper, University of California, Davis, Department of Agricultural Economics, 12/27/77).

11. U. S. National Water Commission, Water Policies for the Future 305 (1973).

12. Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 547, 45 P.2d 972 (1935); but see Erickson v. Queen Valley Ranch Co., 22 Cal. App.3d 578, 584-85, 99 Cal. Rptr. 466 (1971).

13. Eaton v. State Water Rights Board, 171 Cal. App.2d 409, 415, 340 P.2d 722 (1959); but see Erikson v. Queen Valley Ranch Co., 22 Cal. App.3d 578, 582, 99 Cal. Rptr. 446 (1971).

14. Scott v. Fruit Growers Supply Co., 202 Cal. 47, 55, 258 P.1095 (1927).

15. Stevens v. Oakdale Irrigation Dist., 13 Cal.2d 343, 352, 90 P.2d 58 (1939); Los Angeles v. San Fernando, 14 Cal.3d 199, 256-58, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

16. S. Angelides and E. Bardach, Water Banking: How to Stop Wasting Agricultural Water 10-11 (1978).

17. Stevinson Water Dist. v. Roduner, 36 Cal.2d 264, 270, 233 P.2d 209 (1950).

18. Cal. Water Code, Section 1702 (West 1971).

19. See Cal. Water Code, Section 22259 (West 1956) (irrigation districts); Cal. Water Code App. 109-33 (West Supp. 1978) (Metropolitan Water District).

20. Cal. Water Code, Sections 1392 and 1692 (West 1972).

21. Cal. Legislative Analyst, Analysis of the Budget Bill, 1977-1978, 449-450 (1977).

22. Cal. Water Code, Sections 1226 et seq. (West Supp. 1978).

CHAPTER IV. PROTECTION OF INSTREAM USES OF WATER

A. The Nature and Extent of the Problem

There are many socially valuable uses of water which entail damming streams or diverting water from streams. Among these uses are domestic consumption, agricultural irrigation, livestock watering, industrial uses, and power generation. On the other hand, there are several socially valuable uses of water where water is not confined or diverted but is allowed to remain in the stream.

Instream uses of water include recreational uses for fishing, swimming and boating, fish and wildlife preservation, commercial fisheries, aesthetic and leisure enjoyment, and scientific study. Interests in instream uses tend to be diffuse, and instream uses tend to be of general public benefit. While instream uses are considered to be beneficial uses of water, their enjoyment cannot, as a rule, be secured by a water right.

In principle, a well conceived system for allocating water among instream and offstream beneficial uses would weigh the relative value of competing uses. The various instream uses should participate equally in the present system for allocating water supplies, but it does not appear that they do.

In 1970, the Legislature created a citizen's advisory committee to investigate the status of California's salmon and steelhead trout resources. The Legislature recognized that these resources are priceless and irreplaceable and that "[t]he survival of these resources is now threatened". 1/ The committee's investigation revealed a very serious situation:

> North Coast counting stations over the past three decades have shown declines of 66 percent in steelhead, 65 percent in silver salmon and 64 percent in king salmon. The Central Valley king salmon adult spawning population has dropped from 597,000 fish in 1953 to 332,000 fish in 1969 -- a 46 percent decline. 2/

These dramatic declines were attributed primarily to damage to critical spawning habitats. Prior to 1928, it was estimated that the streams under consideration had roughly 6,000 miles of spawning habitat. After 1958, that figure had been cut to less than 300 miles. [3] "Water development has been the major activity significantly decreasing the amount of upstream salmon and steelhead habitat." [4] The advisory committee concluded that " [u]nless positive action is now taken, California faces a genuine environmental tragedy." [5]

Further studies were conducted in 1975 and 1976 in California for use by the United States Fish and Wildlife Service. [6] Forty-six water projects were investigated and evaluated to determine the effect of projects on fish and wildlife. The 46 projects covered various habitats, project purposes, sponsors, fish species, and administrative regions. Among the 46 projects, the results were as follows: two streams were "extinct", with all pre-project fish eliminated; 20 streams were "degraded", that is, some species may have been eliminated and others were present but at severely reduced levels; and 20 streams were "maintained" or "improved" (with 4 unknown). [7] "The principal reason for the degraded status is insufficient downstream flow during some critical period of the year." [8]

Of the 20 degraded streams, over half involved water projects for which minimum instream flow reservations had been set and maintained in implementing the projects. [9] Thus, destruction of fisheries continued even though efforts were made to protect instream values. The report concludes that the effects of water projects on fisheries "have been severely adverse." [10]

These reports have only scratched the surface of the instream problem. Attention has been focused on game fish such as salmon and trout, because of

their commercial, sporting, and recreational value. Relatively little work has been done on non-game species of fish, and even less on non-fish fauna. Furthermore, "insufficient interest has been shown ... in direct relationships between instream flow and wildlife ecology." 11/ Also unknown are the overall effects on other recreational and tourist activities -- hiking, rafting, swimming -- as well as effects on the aesthetic value of having healthy, natural streams.

The decline of instream values fairly speaks for itself. It, of course, is not enough to focus exclusively on one area of need. The problem is that the available water supply must provide for a broad range of needs and interests, of which the protection of instream uses is but one. The solution to the problem of allocating water among instream and offstream beneficial uses requires the needs of all to be understood and weighed together and, where feasible, to be reconciled and accommodated without unnecessarily sacrificing any one beneficial use of water.

B. Existing Mechanisms for Implementing State Policy

Protection of instream uses is a matter of state policy. The Water Code provides that fish, wildlife, and recreation uses are beneficial uses of water which must be considered in administrative determinations of the public interest. 12/ The Fish and Game Code declares that the protection and conservation of fish and wildlife resources are of utmost public interest, and recognizes the importance of commercial and sport uses as well as aesthetic, scientific, and educational uses. 13/

1. Action by the State Water Resources Control Board

A variety of tools exists to implement the state's policy to protect and preserve instream values. A large portion of these tools is found in the Water Code and concern the State Water Resources Control Board's

administration of appropriative rights. The board must consider the protection of instream values twice in the administrative process: in deciding whether to accept or reject a permit application, and in imposing permit and license terms and conditions.

When the Board acts on an application to appropriate water, it must decide whether there is water available for appropriation. In making this decision, the Board has discretion to consider "the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources" and the public interest in instream beneficial uses of water. 14/

The Board must decide whether to reject an application because the proposed appropriation "would not best conserve the public interest." 15/ Three factors enter into this latter decision which involve directly or indirectly the protection and preservation of instream values. First, the Board must give consideration to the California Water Plan, which states that provisions should be made for flows to protect and enhance fish, wildlife, and recreation and that "the planned stream flows should be protected against appropriations of water for other purposes." 16/ Second, the Board must consider in general "competing uses of water" including fish, wildlife and recreational uses, in determining whether the proposed appropriation would best conserve the public interest. 17/ The third factor to consider is water quality control plans, which in turn are to have considered "beneficial uses" of water in each region such as recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. 18/

In granting an application to appropriate water, the Board may impose permit terms and conditions on the diversion and use of the water. The Board

is vested with broad discretion. Many of the terms and conditions the Board has imposed on permittees have directly addressed the accommodation of instream values. These terms and conditions have taken the form of instream flow requirements, requirements for the release of stored water, and fish bypass and fishways requirements. Generally, the Board may modify a permit condition for instream protection only if it has reserved jurisdiction specifically for that purpose. 19/

2. Action by the Department of Fish and Game

The Department of Fish and Game has an important role in the permit application process. Upon notification by the Board of a pending application, the Department recommends the amount of water required for the preservation and enhancement of fish and wildlife resources. Although the Department's mandate to make recommendations to the Board could be broadly construed, the Department has relied primarily upon the process of protesting individual applications. The result of Department protests has often been a negotiated settlement with the water rights applicant. These settlements have thereafter been recognized by the Board and written into the terms and conditions governing the diversion and use of water under the permit. 20/

The Department of Fish and Game also has the power to protect instream values outside of the permit application process. Whenever the natural flow of a stream is to be diverted or obstructed by any private or public entity, it must first notify the Department. If it appears that an existing fish or wildlife resource may be adversely affected, the Department must propose reasonable modifications or measures to protect the resource, such as releases of water, fishways to permit the passage of fish, hatcheries, planting

of fish, or fish screens.[21/] In addition, the Department of Water Resources is required to give "full consideration" to recommendations made by the Department of Fish and Game and others aimed at preserving and enhancing fish, wildlife and recreation uses in connection with the planning and construction of state water projects.[22/]

3. Other Mechanisms

Measures for instream protection are also found in a variety of other sources. Among these are the Wild and Scenic Rivers Act, the Protected Waterways Act, the California Environmental Quality Act, the Fish and Wildlife Coordination Act, and provisions dealing with the licensing and relicensing of projects by the Federal Energy Regulatory Commission.

Under the California Wild and Scenic Rivers Act, portions of nine rivers predominantly in the north coast area have been recognized for their extraordinary scenic, recreational, fishery, or wildlife value. The Act imposes restrictions upon the construction of dams, reservoirs, and other impoundment facilities, and upon water diversion facilities in these areas. It also requires the Secretary of the Resources Agency to classify the rivers as wild, scenic, or recreational and to prepare management plans "to administer the rivers and their adjacent land areas in accordance with such classification."[23/]

The California Protected Waterways Act preceded the Wild and Scenic Rivers Act.[24/] Programs developed under the former Act for the conservation of the named waterways are to be planning documents only. However, no plan has yet been submitted to the Legislature for approval.

The California Environmental Quality Act requires an environmental impact report to be prepared for projects which will have a significant impact upon the environment, so that environmental values can enter into the

decision-making process. Under a recent amendment to the Act, substantive requirements have been added:

> Public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. 25/

The federal Fish and Wildlife Coordination Act and various provisions dealing with the licensing and relicensing of projects by the Federal Energy Regulatory Commission are congressional acts which give to federal agencies the authority to consider instream and environmental values in the authorization, construction, or maintenance of federal projects and federally regulated projects. A federal agency involved in project planning or licensing must first consult with the United States Fish and Wildlife Service and with the appropriate state fish and wildlife agency on ways to conserve, develop, and improve wildlife resources. The agencies are required by the Act to accommodate the conservation of wildlife resources insofar as consistent with the primary purposes of the project. 26/

The Federal Energy Regulatory Commission has the power to impose terms and conditions upon the licensing and relicensing of hydroelectric projects. Many of these license terms and conditions have pertained to the release of water for fish run purposes and for the protection and enhancement of certain other instream uses. The initial 50-year period usually granted by the F.E.R.C. has elapsed for many projects in California, and relicensing has begun for a number of California projects. 27/

C. Need for More Comprehensive Treatment of Instream Needs

1. Problems with the Current System

The process of administration of water rights by the State Water Resources Control Board is the principal source of protection of instream uses. As

mentioned above, instream uses must be considered in the Board's permit process. Instream uses are weighed and balanced with other proposed uses, with the final allocation of water to be in the public interest.

The Board has received increasingly unfavorable reaction to the process it follows to protect instream needs. Many believe that the balancing process, as it is now, does not give instream uses the weight necessary for truly adequate protection. The following frequently experienced difficulties indicate that the Board's procedures are an inadequate and inconsistent means of implementing the state policy of protecting instream values.

One of the most fundamental problems is that data are often inadequate to allocate wisely the water of a stream. "Better data ... must ... be secured for purposes of identification of conflicts and trade-offs among alternative uses, as a measure for quantifying instream values, and to document the need for their protection." [28/] At present, information is collected by the water developer and the Department of Fish and Game during the application and protest procedure. The Department faces financial and time constraints with every application. As a result, there has been no concentrated effort to determine water availability. Lack of a definitive base of information necessitates case-by-case determinations, a "hit-or-miss proposition" that many feel gives only haphazard protection to instream uses. [29/]

Another important problem is the ad hoc nature of the application and protest procedure. Many believe that the process actually discriminates against instream uses. Project designs are often completed before instream protection is considered, making the inclusion of instream protection in project design more difficult to implement. Furthermore, flows required by

the Board for instream protection under one appropriation are subject to subsequent applications to appropriate.

Nothing compels the Board to apply instream flow requirements consistently. The "protection of instream values depends on the cumulative effects of Board action over time. One set of Board members may be staunch in their defense of instream values, but if their successors in office hand out permits freely ... the damage is done. And the damage is cumulative over time." 30/

There is inadequate post-project follow-up to test the efficacy of instream flow protection measures. Currently, evaluation of minimum flow provisions occurs pursuant to the Board's limited reservation of jurisdiction or to a continuing authority term in a permit. Lack of effective follow-up investigations and remedial procedures can be disastrous. For example, continuing jurisdiction for post-project evaluation was not provided for on the Trinity River. Many years after the project was built, studies by the Department of Fish and Game showed a huge decline in the annual steelhead run (from 10,000 to only a few hundred) and in the fall run of king salmon (from 40,000 - 50,000 to around 10,000). The Department is now "fearful that the additional water for fish flows may be unavailable regardless of the final study results." 31/

Applicants to appropriate are also burdened by the current system. It is estimated that the Department of Fish and Game has filed protests to 70 or 80 percent of recent water rights applications. 32/ Protests by the Department mean that "the consumptive user-applicant faces delay and uncertainty, no matter how worthy the project." 33/ Applicants for small filings may face negotiation with the Department in which the "applicant's negotiating

position is not good." [34/] Applicants for such filings may be forced to choose between appropriating on the Department's terms or not appropriating at all.

Present procedures appear to be too narrow to meet the diverse nature of instream uses. Primary responsibility for protecting instream flow needs now falls on the Department, with some input from the public. However, "instream flow needs represent a lot of beneficial uses in addition to fish and wildlife." [35/] These needs are not adequately represented by the current process.

These difficulties have been noted by a number of groups representing diverse interests. Collectively they reflect the desire for a procedure that gives more consideration to the values served by instream uses of water. While the present system theoretically has the potential for protection of instream uses, the reality is that it presents many barriers to effective implementation of established state policy.

2. Response to an Inadequate System

There have been a number of attempts to change or adapt the system of administering water rights to achieve a greater degree of instream protection. Public and private groups have tried to use traditional procedures in non-traditional ways, to expand existing legal doctrines, and to use entirely new approaches not part of current law for instream protection. The fact that these time-consuming, costly and often unsuccessful efforts continue is indicative of the need for a more effective system.

Two significant attempts to use the existing system in a non-traditional way are the efforts by California Trout, Inc., (Cal-Trout) to appropriate water for instream uses on Redwood Creek and by the Department of Fish and Game to appropriate water for instream use on the Mattole River. In each

case, no dam, ditch, or other structure would be built. The central issue is whether appropriation law requires a diversion or other physical control over the water, which instream appropriations lack. Cal-Trout and the Department assert that the need for instream appropriation is "compelling" because present legal means are inadequate to protect threatened fish and wildlife. 36/

Both organizations are concerned primarily that the traditional method of administration of water rights is inadequate to protect their interests. Cal-Trout asserts that "the continued ability to derive beneficial use from [Redwood Creek] is endangered" 37/ because of increasing appropriations. The Department indicates that its power to object to another's application does not "provide adequate protection to the fishery resources of California." 38/ At the trial court level Cal-Trout was successful, but the Department was not. Both decisions have been appealed.

Efforts to provide for instream protection in the Scott River and Soquel Creek statutory adjudications are further examples of a non-traditional approach. The Department's proof of claim was disallowed on the Scott River because it failed to state a legal basis for a water right. In the Soquel Creek adjudication the Board rejected the Department's request for minimum stream flows, limiting its authority to a determination of vested rights. 39/

Instream protection efforts based on relatively undeveloped legal doctrines such as the doctrine of reasonable beneficial use embodied in California Constitution Article 10, Section 2 are still being explored. The reasonable beneficial use requirement suggests two issues. The first is whether it is an unreasonable use, method of use, or method of diversion of water to reduce stream flows below a certain level, either by direct diver-

sion or by storage of water. This issue has not been raised in an actual case.

The second issue is whether a diverter is required to protect instream values by using an alternate method of diversion. This question was raised in a suit by the Environmental Defense Fund (EDF) against the East Bay Municipal Utility District (EBMUD). A proposed diversion by EBMUD would reduce flows in the Lower American River. EDF claimed that a different diversion point was feasible and would allow multiple beneficial uses of water. This case was originally decided by the Supreme Court of California on other grounds, leaving the reasonable beneficial use issue unresolved, but the United States Supreme Court has now vacated that decision and returned the matter to the state court for further consideration. 40/

The expanding public trust doctrine also has great potential for change. The public trust doctrine essentially places the State in the position of trustee of public rights of use in resources including navigable waters, tidelands, and fish. These rights are paramount to private rights. Private rights are subject to public use "easements" and to the potential exercise of the state's power to administer the public trust. An increasing range of public uses has been protected under this doctrine, although litigation apparently has not yet arisen in which a party sought to invoke the public trust doctrine where impairment of consumptive water rights would result.

Watershed and county of origin statutes represent another undeveloped legal doctrine under which attempts have been made to protect instream values. Area of origin statutes do not specifically address instream uses; rather, they express a legislative policy that the area in which water originates will have the water it needs for future development. The County of Trinity

tried to use an area of origin statute to protect instream flows. It brought suit to enjoin the Bureau of Reclamation from implementing a drought year plan which would reduce flows in the Trinity River. Although the county was unsuccessful, the court indicated that area of origin statutes may provide protection for instream uses. 41/

Some efforts to provide protection for instream values involve actions that are outside the scope of current water law doctrine. A very significant response to the inadequacy of the system has been the privately negotiated agreement to provide for physical solutions and minimum flows to ensure instream protection.

Such agreements have come about when the Board lacked the authority, the information, or the motivation to guarantee protection of instream needs. The groups and individuals concerned, including the appropriator, Department of Fish and Game, and municipal and environmental groups, negotiate an agreement which includes instream protection. An example of such an agreement is the "Memorandum of Understanding" currently being negotiated by federal and state agencies, local governments, and environmental groups, involving the American, Cosumnes, Calaveras, and Mokelumne Rivers. This negotiation, discussed in more detail below, arose in response to conflicts between federal and state goals and problems involving existing uses on the four rivers. 42/

All these examples point to increasing dissatisfaction with current instream protection mechanisms. A comprehensive and clear statutory procedure is needed to avoid these uncoordinated and often unsuccessful attempts to achieve instream protection. A standard procedure would provide greater certainty for water developers, who often face costly delays and difficult modifications in project plans when instream protection is required.

3. Summary

The California codes are replete with legislative declarations of the importance of preserving California's unique natural heritage of rivers and streams. The law contains a long list of tools for the protection of instream values. Yet, the impairment and loss of instream values continue to grow. As one panel member asked rhetorically at the Commission's instream workshop, "If things are so good, why are they so bad?" 43/

The reason is that, despite their numbers and variety, the existing means for protecting instream values are largely fragmentary and reactive. As in the case of the participation of the Department of Fish and Game in the permit application process, instream protection proceeds on an ad hoc basis. Existing provisions may compel consideration of instream values in the decision-making process of various public entities, but they do not compel the substantive protection itself. Thus, one finds mostly statutes in which agencies only "must consider" or "must take into account" the public interest in the aesthetic, recreational, and fishery uses of the state's waters.

The California Wild and Scenic Rivers Act does provide direct and substantive protection for natural stream resources. But it includes only a few of California's rivers and is essentially an "all-or-nothing" approach. This approach, while appropriate for the rivers included under the Act, is unsuited for the protection of the many streams which must accommodate both instream and offstream uses and equities, which vary widely from stream to stream.

D. Recommendations

The Commission recommends measures for instream protection which are direct, substantive, and comprehensive, and which will be useful for streams

on which a substantial degree of water development and use may exist. The Commission proposes:

1. That comprehensive instream flow standards be set on a stream-by-stream basis by the State Water Resources Control Board and that the Board comply with these standards in its administrative and adjudicatory decision-making; that instream flow standards be expressed in terms of certain quantities or flows of water which are required to be present at certain points along the stream at certain times of the year to protect fishery, wildlife, recreational, aesthetic, scenic and other beneficial instream uses; and

2. That compliance programs be developed where it is determined that the limitations on administrative actions imposed by the instream flow standards are inadequate to secure the beneficial instream uses of water envisioned by the standards:

1. Instream Flow Standards

Standards would be set on a stream-by-stream basis. The Board would first determine whether the public interest requires that an instream flow standard be set for a particular stream. The Board would also set an instream flow standard for every stream on which rights are to be determined under the statutory adjudication procedure.

Once a stream is chosen, the Board would conduct or coordinate an investigation of the stream and give consideration to the result of investigations, studies, and recommendations made by other interested agencies and the public. The Board would weigh the importance of the present or potential instream values of the stream against the present or potential value, economic or otherwise, of the stream for non-instream uses. Particularly, the Board would consider the feasibility of physical solutions such as water

exchanges, modification of project operation, changes in points of diversion, changes in time and rate of diversion, and uses of water from alternative sources in order to accommodate the competing interests in the water of the stream. Before it adopted any instream standard, the Board would hold a public hearing.

The instream flow standard would have the effect of prohibiting the Board from granting a permit to appropriate water, from approving an application for a change in point of diversion, place of use, or purpose of use, from assigning state filings, or from approving water quality control plans which impair the standard.

Compliance programs would be promulgated, following a public hearing, for streams where it appeared to the Board that compliance with the standards would require existing water uses under claim of right to be affected. The programs would include any physical solutions as may be required to avoid or mitigate the impact of compliance with the standards on existing uses. Where restrictions of existing water uses are necessary, the compliance programs would provide for the equitable distribution of losses or impairment incurred among all the users on the stream. No measure would be allowed to cause substantial harm to any lawful user of water. Purchase of water rights by the Resources Agency would also be available as a compliance tool.

2. Interim Protection

The Commission recognizes that a considerable amount of time may be required to investigate off-stream demands, to develop instream flow and use data, and to reconcile, if possible, competing interests on the stream. Procedural requirements add to the length of time before a standard may be set for a stream.

The Commission also recognizes that in many instances instream values could suffer irreparably before a standard is finally established. It therefore concludes that interim protection of these values is needed pending the setting of a final standard. Consequently, the Commission recommends that instream appropriations be allowed to meet the need for interim protection.

The process for making an instream appropriation would be the same as for regular appropriations, with the following limitations: an application to appropriate instream flows must contain information relating both to the public interest and need for instream protection and to the non-instream demands for water. The Board would have to act upon the application within nine months of the date filed. In considering the application, the Board would have to engage in the same sort of weighing of instream and non-instream interests as in establishing a standard, but in light of the need for interim protection would engage in a less thorough process.

If the application is granted, the Board would then be required to set an instream flow standard for that stream within five years. Upon adoption of the standard, the instream appropriative right would terminate.

3. Physical Solutions

Consistent with the view that instream protection should be the result of balancing competing needs for water, the Commission recommends that such needs be accommodated whenever possible. Often, by changing existing patterns of diversion and use through a physical solution, a water source is able to accommodate a greater number of beneficial uses of water or to reconcile otherwise conflicting uses of water. Proposals for a physical solution on the Lower American River provide a good example of the type of

accommodation which the Commission recommends be sought in compliance programs to harmonize instream with other uses of water.

The U.S. Bureau of Reclamation (USBR) was granted a permit in 1970 to appropriate water from the North Fork American River for storage in the Auburn Reservoir. In December of that year, the Bureau contracted with the East Bay Municipal Utility District (EBMUD) for delivery of up to 150,000 acre-feet of water annually from the Auburn-Folsom South Unit. The water was to be delivered through the Folsom-South Canal, which diverts water above the Lower American River. The water channeled by the Bureau into the Folsom-South Canal would not flow down the Lower American River.

In 1972, pursuant to its reserved jurisdiction over the 1970 USBR permit, the State Water Resources Control Board issued a decision establishing minimum flows in the Lower American River to ensure the protection of fish and wildlife and the enhancement of recreation. Criticism was directed at the USBR-EBMUD contract:

> This type of water development, while satisfying one water requirement, eliminates the possibility for multiple beneficial uses of the water, and is not sound managment of the water resource. 44/

The Board suggested a physical solution that would protect instream uses and satisfy the needs of EBMUD. EMBUD was to meet its future requirements by diverting below the convergence of the American and Sacramento Rivers instead of through the Folsom-South Canal. Water could be used for instream purposes as it flowed down the Lower American River and for consumptive uses after being diverted from the Sacramento River.

Questions of federal/state powers cast doubts upon the legality of the Board's decision. Challenge to the USBR-EBMUD contract was also presented by a suit by the Environmental Defense Fund (EDF) against EBMUD. 45/

These disputes gave rise to negotiations among the U.S. Bureau of Reclamation, the Department of Fish and Game, the Department of Water Resources, the State Water Resources Control Board, EBMUD, EDF, and other governmental and environmental organizations. These negotiations have led to proposals and tentative solutions designed to assure instream protection and to meet the requirements of other water users.

One proposal, to which several water users have not yet agreed, would provide that the amount of water which EBMUD delivers from the Mokelumne River to the Woodbridge Irrigation District pursuant to agreements made in 1938, 1965, and 1974 is to be held in the Camanche Reservoir for fall, winter, and spring releases to enhance fish development. In turn, the Woodbridge Irrigation District would be supplied with water pumped from the proposed Peripheral Canal in the Delta, from the Folsom-South Canal, and/or from the Mokelumne River. In this manner, both instream and offstream uses would be accommodated. 46/

4. Acquisition by the Resources Agency

Independent of the comprehensive instream flow standards and the tools available for implementing compliance programs, the Commission recommends that the Secretary of the Resources Agency be given authority to purchase water rights for instream use. Where enhancement of instream values is desired or where the weight of existing or potential economic values prevents substantial instream protection in the standard-setting procedure, the Secretary should be able to purchase water rights. The Resources Agency is an appropriate body to hold such authority, because it is in a position to represent the broad range of public interests in instream uses.

The acquisition of property rights to complement a regulatory program is a familiar course of action to implement land planning policies. Cities and counties often combine zoning with the purchase of land to achieve a particular planning goal. Thus open-space or agricultural zoning is often used in conjunction with the purchase of scenic easements and park lands. A similar approach would give flexibility to implementing the state's policy to protect instream values.

In light of the severe fiscal constraints currently being experienced by state government, purchases of water rights by the Secretary of the Resources Agency would likely be very limited. The existence of these constraints and widespread opposition to condemnation have led the Commission to recommend against giving the Secretary of the Resources Agency the power to condemn water rights at this time, although this power would be a useful means for instream protection and may well be acceptable at some point in the future.

5. Instream Appropriations

As noted earlier, a currently litigated issue is whether a lawful appropriation of water may be made where the planned use does not involve control of water "akin to possession." 47/ The Commission recommends that such appropriation generally not be recognized.

The Commission believes that permanent instream protection should be the product of a comprehensive approach undertaken by agencies acting in the public interest. It does not believe that the permit application process is a proper vehicle to institute such protection, even though the public interest does enter into this process. Similarly, the Commission believes that reservations or appropriations of water by the Department of Fish and Game, for example, would likewise be unsatisfactory. Long-term allocation of

unappropriated flows among instream and offstream uses requires a considered weighing of many competing interests. The Commission's proposal of instream flow standards, which does provide a method for weighing the various interests in a direct and comprehensive manner, provides a superior alternative.

The proposals regarding interim instream appropriations are not inconsistent with this view. The Commission believes that the need for relatively rapid action requires that use be made of the established administrative structure. The Board's initial weighing of competing demands in considering an application to appropriate instream flows would be the first step in an investigative and deliberative process which would culminate, within five years, in the establishment of an instream flow standard.

The Commission recommends that permanent instream appropriations not involving physical control be prohibited except for stockwatering purposes, which traditionally and administratively have been recognized as appropriations; and except where existing rights are purchased in compliance programs or independently by the Resources Agency and in that manner "dedicated" to the public. The Commission also excepts from the recommendation the beneficial instream use of water under appropriative rights originally perfected for other uses requiring diversion or physical control.

Finally, the Commission notes that legislation to prohibit appropriations where physical control is lacking should be contingent upon the enactment of the instream flow standards legislation. If instream flow standards legislation is not enacted, the Commission has concluded that the entire question of instream appropriability should be left to the courts. It would then be for the courts to decide whether the theory of appropriative rights requires diversion or control, in light of the public policy need for instream protection.

E. Text of Proposed Legislation

An act to add Part 3.5 (commencing with Section 3000) to Division 2 of the Water Code, relating to instream flow standards.

The people of the State of California do enact as follows:

SECTION 1. Part 3.5 (commencing with Section 3000) is added to Division 2 of the Water Code to read:

PART 3.5 INSTREAM FLOW STANDARDS

CHAPTER 1. POLICY

3000. The Legislature finds and declares that the people of the State have a vital interest in the protection and reestablishment where practicable of beneficial instream uses of water; and that the protection, enhancement, and reestablishment where practicable of the state's fisheries and water-related wildlife resources and of recreational, aesthetic, scenic, environmental, and other beneficial instream uses of water are not adequately provided for by existing law, which authorizes only fragmented protection and enhancement measures and which does not provide a comprehensive planning process for the protection, enhancement, and reestablishment where practicable of beneficial instream uses or fishery and water-related wildlife resources.

The Legislature further finds and declares that the health, safety, and welfare of the people of the State require that there be a comprehensive program to provide for the protection, enhancement, and reestablishment where practicable of fishery and wildlife water-related resources and of recreational, aesthetic, scenic, and other beneficial instream uses. Fishery

and water-related wildlife resources should be maintained at their historical level where that level can be achieved and where that level of protection is determined to be in the public interest. An adequate number of diverse recreational, aesthetic, scenic, and other opportunities should be preserved for future enjoyment.

It is the intent of the Legislature that the State shall develop instream flow standards and instream flow programs to protect, enhance, and reestablish where practicable beneficial instream uses of water.

CHAPTER 2. DEFINITIONS

3010. The definitions contained in the general provisions of this code are applicable to this part. In addition, as used in this part:

(a) "Stream" includes any stream, stream segment, or stream system.

(b) "Beneficial instream use" means beneficial uses of water enjoyed by the public generally which are achieved by allowing water to remain in a stream and for which a diversion or some other form of control is not necessarily required. Beneficial instream uses include, but are not necessarily limited to, use for fishery and water-related wildlife resources, and recreational, aesthetic, scenic, and water quality uses.

CHAPTER 3. INSTREAM FLOW STANDARDS

Article 1. Establishment of Standards

3100. The board shall establish instream flow standards whenever necessary to protect the public interest in waters of the State.

(1) The board may, on its own motion, determine that the public interest in the waters of the State requires the establishment or modification of an instream flow standard for a stream.

(2) Any person may petition the board to establish an instream flow standard for a stream or to modify an established instream flow standard.

3100.5. In acting upon a petition to establish or modify an instream flow standard, the board shall set forth in writing its conclusion that the public interest does or does not require, as is appropriate, an instream flow standard to be set on the stream, the reasons therefor, and the findings supporting the reasons.

3101. Each instream flow standard shall describe the flows necessary to protect the public interest in the particular stream. Flows shall be expressed in terms of variable flows of water necessary to protect adequately fishery, wildlife, recreational, aesthetic, scenic, or other beneficial instream uses in the stream in light of existing and potential water developments.

3102. Establishment or modification of an instream flow standard shall be initiated by the board by providing notice of its intention to set an instream flow standard in a newspaper of general circulation published in the vicinity of the stream in question, and to any persons who have previously requested such notice.

3103. After giving notice of its intention to set an instream flow standard, the board or other agencies in participation with the board shall investigate the stream. During the process of this investigation, the board shall consult with and consider the recommendations of the Department of Fish and Game, the Department of Water Resources, the Department of Boating and Waterways, the Department of Parks and Recreation, the United States Fish and Wildlife Service, and the California Regional Water Quality Control Boards.

In formulating the proposed standard the board shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water from the stream for non-instream purposes, including the economic impact of restriction of such uses. In order to avoid or minimize the impact on existing uses of preserving, enhancing, or restoring instream values, the board shall consider physical solutions, including water exchanges, modifications of project operations, changes in points of diversion, changes in time and rate of diversion, and uses of water from alternative sources.

3104. Before adoption of an instream flow standard or modification of an established instream flow standard, the board shall give notice and hold a hearing on its proposed standard or modification.

3105. Any petition for a writ of mandate to review the board's action regarding an instream flow standard shall be filed pursuant to Section 1094.5 of the Code of Civil Procedure, and shall be filed within one year after adoption or modification of the standard.

Failure to file the petition within one year shall preclude any person from challenging the reasonableness or validity of a standard in any administrative or judicial proceeding.

Article 2. Interim Instream Appropriations

3110. Any person may acquire a right to appropriate water under this division for beneficial instream use in order to protect the public interest pending the establishment of an instream flow standard.

3111. Any right acquired under this article shall terminate upon the establishment of an instream flow standard for the stream on which the right was granted.

3112. An application to appropriate water under this article shall set forth data and information concerning the need to protect and conserve beneficial instream uses of water, the demand for non-instream uses of water, and any other pertinent information required by the board.

3113. In considering an application to appropriate water for beneficial instream purposes, the board shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for non-instream purposes.

3114. The board shall grant or reject an application to appropriate water under this article within 270 days of the date the application is filed.

3115. Within five years of the granting of an application to appropriate water under this article, the board shall adopt an instream flow standard for the stream.

Article 3. Effect of Standards

3120. The board shall comply with instream flow standards in taking the following actions:

(1) In determining whether water is available for appropriation for purposes of Sections 1243 and 1243.5 of this code. Water needed to meet an instream flow standard is not available for appropriation.

(2) In setting permit or license terms and conditions pursuant to its original or reserved jurisdiction as provided in Part 2 of this division, or pursuant to the board's continuing authority over a given permit or license.

(3) In determining whether to approve an application for a change in point of diversion, place of use, or purpose of use as provided in Chapter 10 of Part 2 of this division.

(4) In determining whether to release from priority or assign any portion of any application filed under Part 2 of Division 6 of this code pursuant to Section 10504 of this code.

(5) In conducting statutory adjudications, as provided in Chapter 5 (commencing with Section 3250) of this part.

(6) In approving a water quality control plan or a revision thereof adopted by a regional water quality control board, for purposes of Section 13245 of Article 3 of Chapter 4 of Division 7 of this code.

3121. Where it appears that actions taken pursuant to Section 3120 will not within a reasonable time be adequate to achieve compliance with an established instream flow standard, the board shall develop or participate with other agencies in developing a program to achieve such compliance.

(1) The program shall set forth and evaluate those steps deemed necessary for the achievement of compliance within a reasonable time. Such steps may include, but shall not necessarily be limited to, the following:

(a) The acquisition of water rights by the Resources Agency;

(b) Physical solutions; and

(c) Restrictions in existing water uses insofar as such restrictions may lawfully be imposed to further the public health, safety, and welfare. Any such restrictions shall, to the extent feasible, be imposed in an equitable fashion upon all the users of water from the stream. No restriction shall cause substantial harm to any lawful user of water from the stream.

(2) The program shall be effective when, following notice and hearing, it has been adopted by the board.

(3) Any petition for a writ of mandate to review the board's adoption or modification of a program shall be filed pursuant to Section 1094.5 of the Code of Civil Procedure and shall be filed within one year after the program is adopted.

Failure to file the petition within one year shall preclude any person from challenging the reasonableness or validity of a program in any administrative or judicial proceeding.

3122. Any use or diversion of water which violates restrictions in a program adopted pursuant to this chapter is a trespass, and the board shall take appropriate action to enjoin such use or diversion of water.

3123. Any standard or program established under this part shall remain in effect unless and until the board finds the standard or program is not in the public interest and causes the standard or program to be modified as provided in this part. The board shall follow the same procedures to modify a standard or program as are set forth under this part to establish a standard or to develop a program.

Article 4. Statutory Adjudications

3250. Instream flow standards and any necessary compliance program shall be set for every stream for which a proceeding is undertaken under Chapter 3 of Part 3 of Division 2 to determine the rights of claimants to the water of the stream.

3251. The decree establishing and determining rights issued by the court shall expressly provide that all rights set forth therein are subject to instream flow standards and any program to achieve compliance established by the board.

An act to add Chapter 1.1 to Division 5 (beginning with Section 5093.10) to the Public Resources Code, relating to acquisition of water rights for instream uses.

The people of the State of California do enact as follows:

SECTION 1. Sections 5093.10, 5093.11, and 5093.12 are added to the Public Resources Code to read:

5093.10. In the name of the people of the State of California the Resources Agency may acquire by gift, exchange, or purchase any water or existing water right as authorized under Section 3121 of the Water Code or as otherwise necessary for recreation or for preservation or enhancement of fish and wildlife resources.

5093.11. The Resources Agency shall hold any water or water right acquired under this chapter for the beneficial use and enjoyment of all the people of the State for the purposes for which the Resources Agency acquired the right. Notwithstanding any provision in the law to the contrary, neither the Resources Agency nor any agency or person is required to divert or exercise any other physical control over water pursuant to the exercise of any water right acquired under this chapter.

5093.12. The Resources Agency shall succeed to and retain the legal priority of any right acquired under this chapter. Any diversion, obstruction, or interference with the flow of water to which the right attaches is a trespass, and the Secretary of the Resources Agency may institute in the superior court in and for the county wherein such diversion, obstruction, or interference occurs or is attempted, appropriate action to have such trespass enjoined.

[Comment: Financing provisions for acquisitions made under this chapter are not considered here, but it is intended that appropriate measures be adopted by the Legislature. "Legal priority" applies to all types of rights, appropriative, riparian, or otherwise.]

An act to add Section 1227 to the Water Code, relating to the diversion or control of water.

The people of the State of California do enact as follows:

SECTION 1. Section 1227 is added to the Water Code to read:

1227. No right to appropriate or use water may be acquired under this divison unless the appropriation or use involves a diversion or other form of physical control of water; except that no diversion or other form of physical control of water is necessary for the following appropriations and uses:

(1) An appropriation of water under Article 3 of this part;

(2) An appropriation of water for stockwatering purposes;

(3) Beneficial instream uses of water under rights originally perfected under other provisions of law.

[Comment: Subsection (3) includes rights acquired by the Resources Agency under proposed Sections 5093.10-5093.12. It is intended that this section be enacted only if the proposed instream flow standards legislation is also enacted.]

FOOTNOTES TO CHAPTER IV

1. Assembly Concurrent Resolution No. 64 - Relative to creating an Advisory Committee on Salmon and Steelhead Trout. (Filed with Secretary of State, July 9, 1970).

2. An Environmental Tragedy, Report on California Salmon and Steelhead Trout, State of California Report Authorized by Assembly Concurrent Resolution No. 64, 16 (March 15, 1971).

3. Id. at 24.

4. Id. at 23.

5. Id. at 40.

6. C. Hazel, Assessment of Effects of Altered Stream Flow Characteristics on Fish and Wildlife, Part B: California, performed for the United States Department of the Interior, xi. (December, 1976).

7. Id.

8. Id.

9. Id. at 18.

10. Id. at 1.

11. Id. at xix.

12. Cal. Water Code Sections 1243, 1243.5, 1257, 1258 (West 1971).

13. Cal. Fish and Game Code Sections 1600, 1755, and 1800 (West Supp. 1977).

14. Cal. Water Code Sections 1243, 1243.5 (West 1971 and West Supp. 1977).

15. Cal. Water Code Section 1255 (West 1971).

16. California Department of Water Resources, Bulletin No. 3, The California Water Plan 221-22 (1957).

17. Cal. Water Code Section 1255 (West 1971).

18. Cal. Water Code Sections 1258, 13241(a), 13050(e) (West 1971).

19. Cal. Water Code Section 1253 (West 1971).

20. Cal. Water Code Section 1243 (West 1971).

21. Cal. Fish and Game Code Section 1600 et seq. (West Supp. 1977).

22. Cal. Water Code Section 11910 (West 1971).

23. Cal. Pub. Res. Code Section 5093.50 et seq. (West Supp. 1977).

24. 1968 Cal. Stats. 2403, ch. 1277.

25. Cal. Pub. Res. Code Section 21002 (West 1977).

26. 16 U.S.C.A. Section 661 et seq.

27. 16 U.S.C.A. Section 803 (g), 808 (a).

28. Memorandum from Ronald B. Robie, Director, Department of Water Resources, to Harrison C. Dunning, Staff Director, Governor's Commission to Review California Water Rights Law, May 16, 1978.

29. C. Hazel, supra note 7, at xiv.

30. Barry Goode, Introductory Remarks, Governor's Commission to Review California Water Rights Law, 17 (February 16, 1978, workshop).

31. John E. Skinner, Department of Fish and Game, Statement on Instream Water Rights, Governor's Commission to Review California Water Rights Law, 18 (February 16, 1978 workshop).

32. Interview with Charles M. Harris, Unit Chief, Permit and Processing, Division of Water Rights, State Water Resources Control Board, November 7, 1977.

33. Darrell S. Worm, Sierra Club, Remarks, Governor's Commission to Review California's Water Rights Law, 3 (February 16, 1978 workshop).

34. Donald Stark, Remarks in Expert Panel Discussion, Governor's Commission to Review California Water Rights Law (February 16, 1978, workshop).

35. Memorandum from Edwin J. Barnes, Chief Environmental Studies Section, California Department of Water Resources, to Harrison C. Dunning, Staff Director, Governor's Commission to Review California Water Rights Law, April 5, 1978.

36. Plaintiff's trial brief at 5, California Trout, Inc. v. State Water Resources Control Board, Civil No. 233933, Sacramento County Superior Court (Nov. 14, 1977).

37. Id.

38. Plaintiff's closing brief at 2, E. C. Fullerton, Director of the California Department of Fish and Game, and California Department of Fish and Game v. State Water Resources Control Board, Civil No. 61136, Humboldt County Superior Court (Nov. 3, 1977).

39. California State Water Resources Control Board, Scott River Adjudication, Proof of Claim No. 692 (Dept. of Fish and Game); California State Water Resources Control Board, Order of Determination, Soquel Creek Stream System 6 (1975).

40. Environmental Defense Fund v. East Bay Municipal Utility District, 20 Cal.3d 327, 572 P.2d 1128, 142 Cal. Rptr. 904 (1977), vacated and remanded, _____ U.S._____, 99 S.Ct. 70 (1978).

41. County of Trinity v. Andrus, 438 F. Supp. 1368, 1386 (E.D. Cal. 1977).

42. "Memorandum of Understanding on Lower American River Flows and Folsom South Service Area", revised draft (November 11, 1977).

43. Barry Goode, Introductory Remarks, Governor's Commission to Review California Water Rights Law, 12 (February 16, 1978 workshop).

44. State Water Resources Control Board, Decision 1400 at 19 (1972).

45. See note 40 supra and the accompanying text.

46. "Memorandum of Understanding on Lower American River Flows and Folsom South Service Area", revised draft, p. 6 (November 11, 1977).

47. See California Trout, Inc. v. State Water Resources Control Board, supra note 36.

CHAPTER V. EFFECTIVE MANAGEMENT OF GROUNDWATER RESOURCES

A. Importance of Groundwater Resources

1. A Changed Perspective

In 1961-62, an Assembly Interim Committee on Water examined groundwater problems in California. The committee anticipated that groundwater problems in areas such as the San Joaquin Valley "will probably become worse and in a few instances become critical before public attention will be focused on them sufficiently to stimulate the local expenditures for necessary programs." The committee decided not to recommend statewide legislation at that time. It concluded:

> If, in the future, there are indications of major failure in any of the local groundwater management programs, and it can be determined that local negligence or inaction was the cause, the Legislature would then have a basis to take major corrective action. 1/

Sixteen years later, groundwater problems have become critical but adequate, comprehensive management has not been undertaken in many overdrafted areas of the State. 2/ In addition, the range of management options has narrowed. At the time of the committee's investigation it was generally assumed that additional water supplies would be imported to the San Joaquin Valley and other areas to solve overdraft problems. Since that time, however, fewer major new importation projects are being planned. The few projects being planned face a variety of economic, environmental, and political objections. The only new project, other than possible new supplies for the existing State Water Project, expected to be available to the San Joaquin Valley in the next 20 years is the Mid-Valley Canal, which will provide relief for only about a third of the existing overdraft. However, this project has not yet been authorized by Congress. 3/ The 1973 Report of the National Water Commission urged Congress to "scrutinize closely project proposals for areas

mining groundwater that have not instituted conservation regimes and prudent management practices...," [4/] and projects such as the Mid-Valley Canal today can be expected to be subject to close scrutiny.

2. State Policy on Groundwater

The Legislature has repeatedly set the policy foundation for the management of all of California's water resources by declaring that the people of the State have "a paramount interest" in the use of surface water and groundwater and a "vital concern" in the "protection of the public interest in the development of the water resources of the State." [5/] The Legislature found in 1961 that groundwater basins are "subject to critical conditions of overdraft, depletion, sea water intrusion and degraded water quality causing great detriment to peace, health, safety, and welfare of the people of the State." It declared that the people of the State have a "primary interest" in the correction and prevention of these conditions. [6/]

Notwithstanding these strong policy declarations, California's extensive and extremely valuable groundwater resources are not adequately protected. Except in a few areas, groundwater extraction is not managed to the extent that oil and gas production, timber harvesting, mining, or even surface water diversions are. California's groundwater is usually available to any pumper, public or private, who wants to extract it, regardless of the impact of extraction on neighboring groundwater pumpers or on the general community.

3. Groundwater Resources

The estimated average annual net water demand for surface and groundwater supplies is approximately 31 million acre-feet. [7/] In normal years, groundwater supplies 24 percent of this net water demand, and 40 percent of applied water demand. [8/] Chart A identifies the extent of groundwater use,

CHART A

HYDROLOGIC STUDY AREAS

PRESENT WATER SUPPLIES -- NET WATER DEMAND (1000 AF/YR)

Hydrologic Study Area	Groundwater Safe Yield	Groundwater Long-Term Overdraft	Local Surface Water, Local Imports, Waste Water Reclamation	Central Valley Project and Other Federal Projects	State Water Project	* Reserve	Total
North Coastal	140	--	392	430	--	(20)	942
San Francisco Bay	330	--	878	180	130	(260)	1,258
Central Coastal	720	140	60	55	--	(20)	955
South Coastal	930	160	1,867	20	190	(90)	3,077
Sacramento Basin	1,190	90	2,500	2,900	1	(1,050)	5,631
Delta-Central Sierra	630	120	1,338	240	--	(60)	2,268
San Joaquin	520	250	2,256	1,720	9	(110)	4,645
Tulare Basin	510	1,310	2,265	2,900	790	(480)	7,295
North Lahontan	56	--	347	--	--	(10)	393
South Lahontan	120	120	37	--	34	(30)	281
Colorado Desert	74	40	7	3,950	14	(10)	4,075
	5,220	2,230					30,820

Source: Compiled from California Department of Water Resources, Bulletin No. 160-74, The California Water Plan Outlook in 1974, Figures 33-53 (1974). At least one of these figures, the groundwater safe yield for the South Lahontan Hydrologic Study Area, appears to be seriously understated.

* Reserve refers to regulated water supply in a hydrologic service area which exceeds demands for water in the area, or which cannot be served to places of need within the area with available conveyance facilities, or which is not subject to contracts for use within the area. In case of transfer to other areas, the reserve amount would have to be adjusted.

both from safe yield and from long-term overdraft, in the major hydrologic areas of the State.

Groundwater also serves as an emergency source of supply in dry years. Groundwater basins are water storage reservoirs with total useable storage capacity of over three times the combined storage capacity of the state's surface reservoirs. Groundwater basins also have important water quality treatment and water distribution attributes.

In the 1976-1977 drought, water users progressively increased their use of groundwater supplies as surface water supplies diminished. Groundwater depletion in the San Joaquin and Tulare hydrologic study areas increased to almost 5 million acre-feet, which is nearly four times the normal overdraft in those areas. An estimated 28,000 wells were drilled, deepened, or repaired. Overdraft electricity pumping costs for 1977 increased substantially and there were increases on the order of 35 percent in agricultural electrical power usage over 1975 levels.

Although the huge 1977 groundwater overdraft was very expensive, it saved agriculture from disaster. Chart B summarizes the increased reliance during the drought on groundwater in the Tulare and San Joaquin hydrologic study areas.

CHART B
DROUGHT GROUNDWATER RELIANCE
IN THE TULARE AND SAN JOAQUIN HYDROLOGIC STUDY AREAS
ESTIMATED PERCENTAGES OF WATER USE BY SOURCE

	Tulare Basin			San Joaquin Basin		
	1975	1976	1977	1975	1976	1977
Local Surface Water Development	18%	8%	6%	37%	29%	16%
Imported Surface Water	28%	29%	10%	22%	22%	18%
Groundwater (Safe yield and Overdraft)	54%	72%	84%	41%	49%	66%

Source: Compiled from California Department of Water Resources, The 1976-1977 California Drought, A Review, Table 3 (1978).

Groundwater basins have been used for many years as water storage reservoirs. The total storage capacity of all basins in the State has been estimated to be 1.3 billion acre-feet. Usable storage capacity has been conservatively estimated by the Department of Water Resources to be 143 million acre-feet.

Artificial replenishment programs were first conducted in some parts of Southern California before the turn of the century. Since 1957, the conjunctive use of groundwater, surface water, and groundwater basin storage capacity has been part of the State Water Plan. [9/] Conjunctive use means the coordinated operation of a groundwater basin and surface water supplies. The concept of conjunctive use is generally considered to have three aspects: Increased groundwater use or decreased groundwater replenishment with surface supplies in dry years when surface supplies are less than normal; increased use of surface water in lieu of groundwater, either to allow groundwater levels to recover, or to replenish artificially groundwater supplies in years

of more abundant surface water supplies; and long-term storage of water in a groundwater basin.

It has been recognized for a number of years that the control and regulation of sufficiently large volumes of water over long climatic cycles by surface storage alone is not economically feasible. Storage in groundwater reservoirs is increasingly attractive as difficulties of constructing additional surface facilities increase. The costs of putting water underground are minimal, there are virtually no evaporation losses involved in underground storage, and basins often can be used to distribute water. Some of the costs of underground storage involved can be substantial, however, such as the cost of providing standby pumping capacity required to extract the water when needed.

4. Groundwater Problems

Overdraft is the most commonly recognized groundwater problem in California and occurs to some extent in most areas of the State. Long-term overdraft amounts to an average of 2.2 million acre-feet annually. More than half of this long-term overdraft occurs in the Tulare Basin hydrologic study area. Overdraft occurs when the amount of water extracted from a groundwater basin exceeds the long-term average annual recharge to the basin from both natural and imported sources, plus what has been called "temporary surplus." Temporary surplus is the amount of water that can be extracted from a basin to provide storage space for wet year runoff that would otherwise be lost.

Overdraft is expensive. In terms of direct extraction expenses, power costs, and of the related problems it can cause or aggravate, such as seawater intrusion and subsidence, overdraft costs are large. Direct costs of overdraft include increased pumping energy costs to lift water a greater distance, costs of deepening wells or of lowering pumps, and costs of sinking

new wells. The estimated average pumping depth in the Central Valley is 118 feet, but in some areas pumping depths are in the 500 to 1000-foot range, which has made the water too expensive for many agricultural uses.

There are several types of problems related to over-pumping, besides the problem that the usable groundwater supply in a given area may be exhausted. One example is seawater intrusion into fresh water aquifers, which occurs when groundwater extraction increases to the point that the normal seaward movement of fresh water ends and seawater moves inland. Land subsidence also results from overpumping from certain aquifers. Subsidence may occur when the groundwater pressure level in a confined aquifer is lowered by over-pumping, causing water to be squeezed out of the clay layers so that the layers compact. When this happens, the overlying land surface drops. The Santa Clara and San Joaquin Valleys have suffered some of the most substantial subsidence, with drops of as much as 28 feet in one small area of the San Joaquin Valley.

Diminishing water quantity and its side effects are not the only groundwater problems in the State. A complex array of water quality problems also exists. Groundwater quality problems encompass salinity, contamination, degradation, and pollution from thousands of sources, from feed lots and waste disposal sites to irrigation water that accumulates excess fertilizer and salts as it percolates through the soil. The kinds and concentration of chemical, physical, and bacterial constituents in groundwater are also affected by a range of factors, such as soil permeability, climate, drainage, irrigation practices, and types of crops grown. These factors differ greatly from basin to basin. Steps to combat water quality problems involve groundwater management choices which vary with the types and extent of groundwater quality degradation as well as with the availability of water generally.

B. Groundwater Rights Law

Groundwater rights law has several main aspects. Overlying landowners who put the groundwater they extract to reasonable overlying uses have rights which are "correlative." Each overlying user may take only his reasonable share of the supply. An overlying use, regardless of when it begins, is correlative with all other overlying use rights. There is no priority system among overlying uses.

When groundwater is extracted and taken out of the basin or otherwise put to non-overlying use, that groundwater is said to be "appropriated." Overlying users have priority over appropriators, regardless of when the various uses began. Appropriators may take only "surplus" water, water that is not needed for overlying use, and overlying users may stop any appropriation of non-surplus groundwater. The rule of first in time, first in right applies among groundwater appropriators.

If a groundwater user takes either more than his correlative share of the supply or takes non-surplus water for an appropriative use, he may acquire a "prescriptive" right to the amount of water he takes. In a groundwater adjudication, the court in Pasadena v. Alhambra [10/] developed the doctrine of "mutual prescription". In a chronically overdrafted basin, all pumping -- for both overlying and appropriative uses -- was deemed to be adverse to all other pumping, so that every user in the basin acquired prescriptive rights against every other user. Mutual prescription was viewed as a convenient legal device courts could use to reach an acceptable result. The court awarded each user a pro rata share of the basin supply. The court decided that this allocation was equitable and the least disruptive solution. The mutual prescription doctrine was used in a number of subsequent groundwater adjudications.

In 1975, the California Supreme Court decided the lengthy adjudication in Los Angeles v. San Fernando. [11/] This decision made it unlikely that mutual prescription would be used in the future unless all parties agree to its use. At the same time, however, Los Angeles v. San Fernando did not point back to the correlative sharing and prior appropriation principles as the solution in future adjudications. The court suggested that some form of equitable apportionment may be worked out for each case, and that "physical solutions" -- water supply arrangements made between parties to ease the burden of reducing groundwater extractions -- should be more broadly conceived and used.

Overall, groundwater law is at a point of great uncertainty. Mutual prescription probably cannot be imposed in most cases. Application of the correlative and appropriation principles is probably impractical since their application would be exceedingly complex. At this time, a groundwater user in a basin which has not previously been adjudicated can have only a very uncertain idea of what his "right" actually is. To determine what his "right" is, a groundwater user would have to initiate an adjudication of the entire basin.

If there is a basin adjudication, according to current law, groundwater users in the basin would be limited to extraction of "safe yield." In both cases in which the California Supreme Court has considered groundwater basin adjudications, the court has approved limiting aggregate pumping to safe yield, although in the most recent case a flexible definition of safe yield was adopted. [12/]

C. The Existing Groundwater Management Situation

1. The Tragedy of the Commons

Groundwater is a "common pool" resource. Groundwater may be extracted by overlying owners for overlying uses, and the limit of an overlying owner's

right is that he may take only his reasonable, correlative share of the common supply. Like other common pool resources, groundwater is subject to what has been called "the tragedy of the commons". 13/

The tragedy of the commons develops in the following way: Overlying owners drill wells in a common groundwater basin. After a period of time, total extraction approximately equals total replenishment to the basin, so that the basin is in a steady-state condition. Each owner, at that point, calculates whether it is to his benefit to increase the amount he pumps. The advantage to him of an additional amount of water almost invariably exceeds the disadvantage to him of a slightly lowered water table in the basin overall. The owner will ordinarily conclude that he should pump the additional amount:

> But this is the conclusion reached by each and every rational [overlying owner] ... sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his [pumping] ... without limit -- in a world that is limited. 14/

Although at some point long-term overdraft eventually would be curtailed as rising extraction costs forced enough users to stop extracting groundwater, taking "no action" could have serious drawbacks. Communities that rely on groundwater to develop their economies risk disruption of their water supply, the groundwater resource itself could be irreparably harmed, and taking no action would also waste a tremendous amount of energy since water must be lifted from greater and greater depths. If extraction is limited to the amount of water replenishing the basin, at a point at which water levels have not dropped drastically, the unfortunate consequences of taking no management action can be avoided.

Because agriculture uses 85 percent of the water used in California, agriculture has the most to lose from a serious depletion of the groundwater

resource and the most to gain from effective management. The role agriculture plays in California's economy is so substantial that all state residents have a considerable interest in encouraging uninterrupted agricultural productivity. Farm production grossed more than $9 billion in 1977, and hundreds of thousands of Californians were involved in food transport, processing and sales, and production of textiles and apparel from natural fibers. [15/] A "no action" choice for groundwater management involves unacceptably high risks for an industry upon which Californians and the nation depend.

2. Problem-Solving Management

a. Management at the Local Level

There are no comprehensive groundwater management programs at the state level. There are Department of Water Resources guidelines for counties to use in adopting well construction and abandonment ordinances, and there are informational filing requirements for well drilling and other well-related activities. Limited studies are conducted to gather groundwater data. An act which requires pumpers to report the amount of groundwater pumped to the State Water Resources Control Board each year applies only to four Southern California counties. In addition, some water districts and other local public entities collect groundwater data or require groundwater users to report extractions periodically. Since 1969, the State Water Resources Control Board has had the power to initiate an adjudication of a groundwater basin to prevent destruction of or irreparable injury to groundwater quality, although the Board has never exercised this power. The Department of Water Resources also has been negotiating to develop conjunctive use programs to use available groundwater basin storage space to store State Water Project water.

Groundwater management has occurred solely on an ad hoc basis at the local level, in response to local initiative. Ingenious and sophisticated

management structures have been created to deal with specific groundwater conditions, such as seawater intrusion and critically lowered water tables, or to compel the purchase of available supplemental water in areas where there are groundwater problems. The success of local management programs shows that locally conceived and controlled groundwater management programs can be adequate and that state-level management is neither essential nor necessarily desirable where effective local programs are undertaken. Local management is also appropriate in view of the varied physical characteristics of basins throughout the State.

It should be noted, however, that no area has undertaken an adjudication or district management program unless adequate supplemental water has been available or is expected to be available. It should be anticipated, therefore, that management efforts of the type proposed by the Commission are not likely to be taken voluntarily in areas without immediate prospects of adequate supplemental water delivery.

There have been two main approaches in California to instituting successful groundwater management. One has been by formation of a water district with powers to carry out a groundwater management program. The second has been management by a court-appointed watermaster with powers similar to those of a management district, after an adjudication of substantially all rights to extract groundwater in the management area.

b. Water District Groundwater Management

The Orange County Water District [16/] has been the leader in the water district non-adjudication approach to groundwater management. The district has a wide range of management powers, including the power to require pumpers to file periodic "water production statements" with the district.

The district's financing powers are extensive. It was the first district to levy a pump tax ("replenishment assessment"). The pump tax applies to all groundwater extraction, so there is no advantage to being an overlying landowner or an early appropriator. The district uses "basin equity assessments" either to increase or decrease the cost of groundwater in order to influence the relative amounts of groundwater and surface water that are used, and to regulate pumping patterns.

A central function of the Orange County Water District is to use imported water to replenish the groundwater supply. The district's replenishment operations include "spreading" the water in areas chosen because they allow the water to percolate rapidly into the groundwater basin, and "in-lieu" replenishment. In-lieu replenishment involves substituting a surface water supply for groundwater pumping in a particular area to allow the groundwater level to recover as a result of natural recharge.

c. Adjudication-Watermaster Groundwater Management

The San Gabriel adjudication [17/] watermaster program indicates the direction that the adjudication-watermaster approach to groundwater management is taking. The San Gabriel watermaster has a much more sophisticated range of powers and authority than the Department of Water Resources has as watermaster for the court in four areas in Southern California. The San Gabriel watermaster, composed of nine members appointed by the court pursuant to an agreement among groundwater users in the adjudicated area, is a policy maker. It can levy a "replacement water assessment", which is a charge on pumping in excess of a pumper's adjudicated share of the basin's yield, can conduct a groundwater replenishment program, and has authority to control storage in the basin.

Nearly all groundwater adjudications have ended with a stipulation for judgment. In other words, strict water law doctrine has usually not been followed in determining rights to extract groundwater. Parties have reached agreements on allocations they believe to be fair and reasonable and have agreed to watermaster management.

D. Groundwater -- A Complex Management Problem

The following examples illustrate a variety of groundwater problems and some of the management efforts to resolve these problems.

1. Piecemeal Regulation -- Filling the Groundwater Management Vacuum

In many areas there is no groundwater management program. Various agencies, including state agencies, are tempted to fill this vacuum where they perceive that there are problems related to their area of interest. The actions of the Coastal Commission show that groundwater controls may be uncoordinated, uneven, and illogical when they are imposed by an entity which lacks the power to approach groundwater problems in a comprehensive fashion.

The Coastal Commission has jurisdiction over the "coastal zone," a region extending from the coastline to as far as five miles inland.[18/] A permit must be obtained for all coastal developments, which include "change in the intensity of use of water, or of access thereto" and "the placement or erection of any ... structure ...."[19/] Water supply and quality must be considered for all development permit applications.

In at least four cases the Coastal Commission has denied an overlying owner a permit to drill a well or to construct a "project" requiring groundwater extraction. In another twenty-nine cases it has imposed conditions on well permits.[20/] The Coastal Commission justifies these denials and conditions upon the somewhat uncertain basis that water use restrictions are

mandated by directives from the Legislature to protect coastal resources, such as wetlands or vegetation, and to grant preferential treatment to the development of agriculture, coastal-dependent industries, and visitor-serving recreational facilities. Only in those basins where it believes it has the ability usefully to control overdraft or seawater intrusion has the Coastal Commission restricted the installation of wells. The Coastal Commission has not attempted to adjudicate groundwater rights as such, nor are groundwater rights considered or reflected in Coastal Commission decisions.

While the right to extract groundwater theoretically may remain unimpaired by the Coastal Commission's action, the value of a groundwater right is greatly diminished if it cannot be exercised. An inequity exists when pumpers in the same basin but outside the coastal zone may increase their groundwater use regardless of the priority of their rights relative to the rights of those within the coastal zone who are restricted. Groundwater adjudication is a remedy, but it is realistically beyond the reach of any small user.

The Coastal Commission's restrictions on groundwater extraction have been attempts to manage an endangered resource within the scope of the Coastal Commission's mandate. These restrictions suggest that governmental agencies will fill the groundwater management vacuum elsewhere unless comprehensive groundwater management programs are established. Integrating groundwater extraction rights into more comprehensive resource management programs would be both more equitable and more effective than the patchwork system which is now developing.

2. Well Interference -- A Challenge for Local Management

Most problems caused by a lack of groundwater management, though extremely serious in their ultimate consequences, develop gradually. Communities often have a number of years in which to correct groundwater practices before

a situation becomes intolerable. Well interference, however, sometimes develops very quickly, with potentially devastating results for those pumpers affected. The challenge of controlling well interference has not been met by most communities. 21/

An operating well dewaters the aquifer around it in a pattern known as a "cone of depression." A large well operated at capacity creates a large cone of depression and smaller nearby wells may run dry if they are situated within the cone of depression created by the large well. Wells of the same size may interfere with each other if they are so closely placed that their cones of depression intersect. Occasionally portions of a basin may become completely dewatered.

Periods of drought greatly accelerate well interference problems because pumping increases dramatically to supplement diminished surface water supplies. During the 1976-1977 drought, serious cases of well interference occurred in many areas of the State, and those pumpers affected became painfully aware of the absence of any speedy remedy for persons in their predicament.

Informal attempts to resolve problems with neighbors were no doubt the most common, and the most successful, way of coping with well interference. Unhappy pumpers also frequently called or wrote their legislators and the Governor. Pumpers have also occasionally sought administrative relief from the State Water Resources Control Board or filed suits in superior court to enjoin pumping that was causing well interference. Relief has rarely been granted in such proceedings. Furthermore, civil suits are expensive and may be too slow to provide water when it is needed.

In part because of the difficulties which individuals encounter in reaching a satisfactory solution to well interference problems, a number of cities and counties enacted ordinances which limit the installation of new

wells. The City of Grass Valley enacted an ordinance which restricts new wells that are intended to provide water for land outside the city limits. Placer County also enacted a temporary ordinance, which has expired, limiting the construction of new wells in some parts of the county to those wells eight inches in diameter or less.

An effective means must be provided for protecting small users from the dilemma of choosing among the following: a total loss of water; the installation of a larger, expensive well which will itself aggravate well interference problems for other neighbors; and expensive, lengthy, and possibly ineffective litigation. In many cases cost is decisive and injured pumpers are able to obtain water only through the good will of their neighbors. The frequency of well interference problems and the general absence of reliable remedies indicate that comprehensive local groundwater management is needed.

3. Imported Water -- No Simple Solution to Overdraft

The importation of surface water is by itself no panacea for uncontrolled groundwater overdraft. Even in severely depleted basins, groundwater pumping may be much less expensive than the purchase of imported water. Consequently, water users are unwilling or unable to purchase imported water if groundwater sources are accessible to them.

Contractual and revenue considerations may also constrain local water entities' policies on the use of imported water in lieu of groundwater or on replenishment of groundwater supplies. A comparison of the history of Colorado River water use in Southern California with State Water Project water allocation in Kern County illustrates the effect of differing financial, legal, and policy stances.

The Metropolitan Water District of Southern California is composed of member water retailers and wholesalers, including cities and municipal

water districts.[22/] In 1931, Metropolitan Water District voters authorized bonds for the construction of the Colorado River Project. Member units were not placed under an obligation to make payments to the Metropolitan Water District beyond repayment of the construction bonds until they wished to use the water made available by the project.

Although groundwater basins became severely depleted, little water was purchased until the late 1950's. This was partially due to the decision in Pasadena v. Alhambra, in which rights to extract groundwater were based upon the volume of recent pumping by each pumper. Pumpers chose to maximize their rights under the Pasadena formula, rather than to buy more expensive Metropolitan Water District water. Eventually the groundwater situation became so critical that some member districts began to seek the power to manage groundwater use within their service areas. Orange County instituted a dramatic program, described above, which coordinates the management of groundwater and local and imported surface water. The opportunity for member units to purchase imported water at the times and in the amounts needed, rather than at the outset of the Colorado River Project, has been an aid in solving groundwater problems.

Groundwater overdraft has also been a severe problem in Kern County. In the years prior to delivery of State Water Project water, overdraft was estimated to be between 500,000 and 800,000 acre-feet per year.[23/] Some attempt was made to mitigate this problem by the Kern County Water Agency at the time that the State Water Project was planned. Nevertheless, the present overdraft is nearly the same as that which existed prior to the annual importation of approximately 800,000 acre-feet of State Water Project water.

Unlike the Colorado River Project, the State Water Project demanded firm commitments to purchase water before construction of water transportation

facilities commenced. The agency was unable to assure purchase of water unless its constituent districts agreed. Despite the overdraft, State Water Project water was more expensive than pumped water, and the Kern County Water Agency had no power at that time to institute a pump tax which could equalize the cost. Individual users had insufficient motivation to purchase the more expensive water.

Although the agency attempted to obtain contracts with water users who were relying on local surface and groundwater sources, it was eventually forced to sell much of the water to develop previously unirrigated lands. Sales to new users did nothing to reduce excessive pumping, and the development of new land aggravated problems of water shortage during the 1976-77 drought.

Since the early 1960's, when contracts for State Water Project water were signed, the Kern County Water Agency has instituted programs, including a limited pump tax in some areas, to correct groundwater overdraft. These programs have been hampered not only by the recent drought, but also by the fact that nearly all imported water has already been allocated. Little water is left for groundwater recharge.

The importation of water itself will not reduce overdraft where financial and legal incentives are lacking. Furthermore, an inability or failure to allocate a portion of the imported water for groundwater management when the water is first available may thwart future management efforts.

4. Surface Water and Groundwater -- Management of an Interconnected Resource

Importing additional surface water does not guarantee a solution to groundwater shortages, but there is no doubt that the management of surface water and groundwater are very closely connected. Allocation of surface water

affects supply and demand for groundwater. Comprehensive management of groundwater is as important in the planning of further surface water development as surface water management is in mitigating existing groundwater problems. A transaction in Kern County involving surface water rights belonging to Tenneco West, Inc., and concurrent development of extensive groundwater extraction facilities by Tenneco illustrates the problem. 24/

The City of Bakersfield filed two lawsuits, one to condemn water rights held by Tenneco West, and one to adjudicate all rights in the Kern River, some of which were held by Tenneco West. A settlement was reached, and Tenneco agreed in 1976 to sell its surface water rights to Bakersfield.

During the time the litigation and negotiations were in progress, Tenneco West was changing 24,650 acres of land from sporadically irrigated pasture and grazing to field crops in the James-Pioneer Improvement District. Prior to 1975, consumptive water use for this land was probably in the neighborhood of 15,000 to 16,000 acre-feet annually. It now equals about 63,450 acre-feet per year. Well fields were installed to provide a reliable water supply for this land. Neighbors were distressed that more intensive farming of Tenneco's lands, coinciding with the loss of Tenneco's surface water rights, would severely increase the burden on the area's already heavily overdrafted groundwater resources.

Tenneco West has attempted to mitigate groundwater problems by installing a dual irrigation system which can deliver either surface water or groundwater to its 24,650 acres. Surface water is purchased from Bakersfield when possible, and a five-year contract to purchase water from the Kern-Tulare Water District has been signed. The ability to use surface water and the efforts to acquire it have lessened the fears of neighboring farmers. Nevertheless, irrigation needs in excess of water provided by water purchases will be met by

the dwindling groundwater resource which Tenneco West shares with other farmers in the area.

No single party is responsible for the creation of this potentially serious situation. Nevertheless, the combination of a change in land use with a loss of surface rights in a very water-short area presents the spectre of a greatly increased rate of overdraft, with serious financial consequences for everyone in the area. Management programs which coordinate the efforts of all groundwater users would provide greater security for all.

5. Conjunctive Use - Opportunities for Far-Sighted Management

An effective means of increasing the firm yield of a surface water supply without the construction of surface storage facilities is to integrate the use of surface water with groundwater through "conjunctive management."The value of conjunctively using surface water and groundwater resources has been recognized and practiced for some time as a management policy by local water agencies.

The number of recharge facilities in Central California has increased from 15 in 1940, to 261 in 1970. [25/] One of the local agencies most actively engaged in conjunctive use through groundwater recharge is the Arvin-Edison Water Storage District. [26/] The district is located in southeastern Kern County, and comprises approximately 130,000 acres. Because very little surface water exists naturally in this area, surface water is imported, primarily from the federal Central Valley Project. Water is delivered both through the Friant-Kern Canal and via the California Aqueduct and Cross Valley Canal. Only about 20 percent, or 40,000 acre-feet, of Arvin-Edison's CVP water is Class 1, or "firm", water. Actual deliveries of surface water vary greatly from approximately 10,000 to 350,000 acre-feet annually.

Through implementation of a conjunctive use program, Arvin-Edison expects to be able to increase firm water service to 180,000 acre-feet per year, without withdrawing more groundwater than has been stored in its basin. Rather than install a dual irrigation system throughout the district, as has been done in some parts of the Valley, Arvin-Edison has chosen to provide surface water only to the portion of the district for which full water service can be provided. Water is delivered to these lands either from an aqueduct or is pumped from the underground after having been stored through recharge. Approximately 52,000 acres, or about 40 percent of the district, will eventually be served. The remainder of the district will continue to rely on private, uncontrolled groundwater extraction.

Implementation of the Arvin-Edison conjunctive use program required construction of extensive project facilities. These include a 44-mile canal system, a major pumping plant, 49 booster pumping plants, and 170 miles of pressure pipeline. The district now has two spreading areas totalling 950 acres. Fifty-five district wells have been installed to recapture the stored water.

Revenue to repay project construction costs is raised from tolls levied on those receiving water service from the conjunctive use operations of the district and from general administrative and project service charges levied on land still relying on private extraction of groundwater but benefitting from district operations. Removing 40 percent of the acreage within the district from dependence upon naturally occurring groundwater resources benefits those who continue to pump by reducing the rate of groundwater overdraft and the resulting drop in water levels. Stated district policy is to equalize the cost of water to those in like situations with respect to groundwater production costs, regardless of their actual source of water.

It is more complicated to undertake conjunctive use programs at the state level. The Department of Water Resources, administrator of the State Water Project, has a two-part task in developing conjunctive use programs. It must identify those basins with a significant amount of available storage capacity which have spreading basins accessible from State Water Project conveyance facilities. In addition, unless the Department develops its own extraction facilities, it must negotiate agreements with the local water agencies which pump water from the groundwater basin in which storage is to take place and to whom, in many cases, the stored water will be sold. 27/

Problems with negotiating agreements with local agencies have proved to be the real bar to state involvement in conjunctive use programs. Although the Department is attempting to establish long-term programs in several areas, it has not yet been successful. Recently, however, it has entered into a short-term conjunctive use program with the Mojave Water Agency and the San Bernardino Valley Municipal Water District. The cooperation of these two agencies has made possible the storage of more than 22,500 acre-feet of water.

The agreements between these local agencies and the Department overcame circumstances of an unforeseen surplus of surface water which needed immediate storage, ample storage capacity in a location with relatively low need for additional water, and little immediate underground storage capacity in the area in which the water was needed in the future.

The heavy rains of the 1977-1978 winter filled most surface storage facilities throughout the State. The Kern River threatened to flood agricultural lands unless some of the water was diverted into the California Aqueduct. The State Water Project lacked storage space for this water, and the Department of Water Resources sought a location in which the water could be stored underground.

Substantial available storage capacity existed in Mojave River groundwater basins. The Mojave Water Agency was willing to participate in a conjunctive use program, but only during the next few years, since it anticipates that it will not need the increases in deliveries now included in its contract for water from the State Water Project. The 22,500 acre-feet of water stored in Mojave basins will be withdrawn in lieu of deliveries from the State Water Project over the next four years.

The San Bernardino Valley Municipal Water District intends to continue to take substantial amounts of State Water Project water, but the groundwater basins in its area are nearly full. Only 5,000 acre-feet can be stored in 1978. In the next four years, the water which would have been delivered to the Mojave Water Agency, no longer needed because of the 22,500 acre-feet in storage there, will be delivered for storage to San Bernardino instead.

The Department hopes that the Mojave-San Bernardino conjunctive use program will show that conjunctive use is economically and environmentally sound, and possible even when circumstances of storage capacity and need do not coincide. The proliferation of conjunctive use programs would ensure that excess water will be conserved for those periods when it is in greater demand.

6. Roadblocks to Management via Adjudication

Rules of civil procedure are stumbling blocks for groundwater adjudications under the existing system. Although management without adjudication is possible and often desirable, the diversity of interests in many areas has prevented comprehensive management without adjudication.

Adjudication has led to successful programs for several groundwater basins in Southern California. Procedural rules appropriate for less complex litigation can, however, effectively prevent the successful conclusion of a groundwater adjudication. The attempt to adjudicate the Mojave River Basin

illustrates the manner in which an adjudication may be defeated even though the vast majority of the parties involved agree to a stipulated judgment.

In 1966 the Mojave Water Agency filed an action to adjudicate water rights in the groundwater basin fed by the Mojave River in San Bernardino County. 28/ During the following three years the plaintiff conducted hydrological studies and negotiated a water management plan with pumpers in the area. By November 1970, 88 percent of the parties, representing approximately 95 percent of water extraction, had executed the stipulation for judgment or had defaulted. Subsequent procedural delays together with an erosion of political support for adjudication prevented the successful conclusion of the action. In 1976, the board of directors of the Mojave Water Agency requested that the case be dismissed. The cost to the agency was reported to be in excess of $500,000.

One of the most time-consuming issues in an adjudication is the determination of the parties to be included in the action. Hydrological studies provide information needed to define the area to be adjudicated, but there is no way to prevent persons within the defined area who wish to be excluded, or persons outside of the area who wish to be included, from litigating their status. This issue lends itself to dilatory tactics by those who wish to prevent any successful adjudication. Nearly two years after defendants were served with the complaint in the Mojave case, attempted interventions were still being litigated.

A secondary, but significant, problem is the identification of parties within the geographic boundaries selected. Records listing names of pumpers are rarely complete and quickly become obsolete as property changes hands. Inadequate records, plus such factors as joint ownership of property, make identification and service of parties difficult.

The hindrance posed by party determination and identification is a function of a more general problem -- the sheer number of parties involved.

Over 700 pumpers were involved in the attempt to adjudicate the Mojave River Basin. Other groundwater cases have involved over 1,000 parties. The number of groundwater extractors which would be included in an adjudication of a portion of the San Joaquin Valley would probably be even greater.

The cost of litigation which involves so many parties is great, individually to the plaintiff and cumulatively to the many defendants. Attempts to mitigate costs in the Mojave case included provisions that stipulating defendants need not answer the complaint and that discovery materials would be available but not sent to stipulating defendants. Furthermore, an agreement was reached that there would be no interference with the rights of extractors whose annual use was 10 acre-feet or less.

Delay, whether the result of coping with complex litigation or the product of dilatory tactics by those who oppose the action, is a problem in any adjudication. Dismissal is mandatory if defendants are not served within three years, or if the trial does not commence within five years after the action is filed. Delay by the opponents of the adjudication may make it impossible to meet these deadlines.

Even if dismissal can be avoided, protracted litigation may destroy any consensus previously achieved. The first three years of the Mojave adjudication were devoted to study and to negotiations with the hope of expediting the actual trial. Litigation over the parties to be included and attempts by certain interests to prevent setting a date for trial filled the following two years of the statutory period. To prevent mandatory dismissal the trial was begun with the testimony of one witness, but was continued to a later date to permit additional pretrial proceedings. During these extensive delays the political climate in the agency changed. Gradually, members of the board of directors who supported the action were replaced with those who opposed it.

Parties withdrew from the stipulation for judgment. The final blow, if any potential for an adjudication remained, was delivered by the opinion in Los Angeles v. San Fernando. This decision undermined the stipulated judgment by casting doubt upon the vitality of the mutual prescription doctrine employed in negotiating the judgment.

7. Management Efforts to Maintain a Groundwater Supply

Groundwater management has in many areas been premised upon an expectation of increasing amounts of imported water. The expectation of and demand for imported water has also been offered as a justification for the failure to manage the groundwater supply. So long as the total water supply is increasing, it is easier to postpone the difficult decision of how to allocate a finite resource. At some point, however, water supply is finite. One of the communities which is faced with the problem of a water supply which will not increase, Goleta, has found that under the present system it is difficult to avoid overdraft even when management is desired.

The major water supplier in the Goleta area is the Goleta Water District. [29/] It was organized in the 1940's to distribute the water available to Goleta from the Cachuma Reservoir. Water from Cachuma is the only imported water available in the area. A period of tremendous population expansion began shortly after the district was organized, and it soon became apparent that additional water sources were needed. A number of wells were sunk to provide the extra water.

Other major water users in the area include a mutual water company, which purchases Cachuma water from the district and which owns wells, and agricultural users who rely primarily on groundwater. By 1972, the total average demand for water exceeded the Cachuma supply plus the safe yield of the groundwater basins. It had once been hoped that State Water Project

water would be available, but by 1972 construction of the necessary conveyance structures seemed unlikely. Since the prospect of additional water supplies was dim, the district placed a moratorium on hookups and restricted its pumping to the amount it had been extracting when the safe yield had been reached. The citizens in the district's service area supported this decision by defeating an initiative which would have permitted overdraft. Furthermore, no subdivisions have been approved for the Goleta area since the moratorium was established.

In spite of community support for restricting groundwater extractions to the safe yield, two issues remain to be resolved. One is the prevention of overdraft by water users other than the district. Since the district has no power to restrict pumping by others, extractions are bound to increase unless all users participate in a program which limits extraction.

The second unresolved issue in Goleta is how the groundwater that is available should be divided among potential users. An action in the nature of declaratory relief has been filed to settle this question between the district and the landowners. Landowners claim that as overlying users they have the right to initiate a use of water at any time. The district, which as a groundwater appropriator is junior in right to overlying users, contends that the "intervention of public use" doctrine protects its right to continue to extract groundwater in the same amount as it did when total pumping reached the safe yield level. Briefly, this doctrine provides that a water user who is junior in right to other water users, but who puts the water to a public use, acquires a permanent right to the water. 30/ Damages may be available to the injured senior parties, but the potential danger to the health and welfare of the public justifies a grant of continued public use.

Whether the doctrine of the "intervention of public use" applies in the Goleta situation is a matter for determination by the court in the pending adjudication. If the doctrine does apply and damages are awarded to landowners, a new dilemma will be presented. The measure of the damage suffered is not clear, but the damages awarded might be substantial. The district will then face the problem of raising funds adequate to pay the amount awarded.

The problems of how to allocate the available water and how to distribute the financial burden of an inadequate supply obviously are not easy to resolve. As with the imposition of a program restricting groundwater extraction to the safe yield, our present system generally relies upon the laborious process of an adjudication if the parties cannot reach a settlement. A speedier, less costly alternative which encourages settlement of these difficult problems is necessary for wise groundwater use in tne coming years.

8. Technical and Legal Uncertainty Regarding Groundwater Transfers

Another problem for groundwater management is that while there is no legal restriction on groundwater transfers other than the possible claims of third parties, there are no institutional means for determining when a transfer of groundwater should be permitted. In some instances, transfers may further the reasonable and beneficial use of groundwater. Although transfers of groundwater are facilitated in several adjudicated basins, uncertainty exists in most places regarding the extent of rights to groundwater and the extent of present and future local needs for groundwater resources. Reliable data on the effect of a transfer upon these rights and needs is generally unavailable. The unsuccessful attempt by Anderson Farms Company to transfer Yolo County water to Berrenda Mesa Water District in Kern County exemplifies the problems encountered.

Anderson Farms owns or leases extensive acreage in Yolo County. It claims both riparian and pre-1914 appropriative rights to surface water from the Toe Drain, a surface source west of the Sacramento River Deep Water Ship Channel. 31/ In the past, Anderson Farms irrigated almost exclusively with surface water. Anticipating increased salinity in the Toe Drain during the drought, it installed ten large wells as an alternative source of water.

Berrenda Mesa is a 53,000-acre district which relies totally upon imported water from the State Water Project. Over half of the acreage served by Berrenda Mesa has permanent plantings. Many of these permanent crops could have been lost if the drought had continued into 1978, since insufficient State Water Project water would have been available to Berrenda Mesa.

In an attempt to avoid the loss of this $100 to $150 million investment, Berrenda Mesa initiated transfer negotiations with Anderson Farms. The two parties developed a plan under which Anderson Farms would use groundwater to some extent to reduce its surface withdrawals from the Toe Drain and, if necessary, would discharge additional groundwater into the Sacramento River. The State Water Project would credit Berrenda Mesa with water in the amount of the reduction in surface withdrawals by Anderson Farms, plus any groundwater added to the river.

Anderson Farms did not plan to reduce acreage under cultivation, but rather intended to increase groundwater extraction. The proposal was met with complaints from other groundwater users in the area. Because State Water Project facilities would be used to transport the water to Berrenda Mesa, approval of the transaction by the Department of Water Resources was required. The Department asked the State Water Resources Control Board to consider the

transfer. The Board refused to approve the transfer, citing potential overdraft, water quality and river flow problems, as well as the potential effects on nearby wells and on rights to groundwater. It noted that there was insufficient evidence to deal conclusively with many of the key issues. 32/

The fear that major groundwater transfers might be undertaken without adequate protection for local pumpers has led several counties to enact ordinances restricting groundwater export. Glenn and Butte County ordinances require any potential exporter to obtain a permit for export from the county. The county may deny a permit if it finds that the extraction would "adversely affect" the water table. Permit conditions can be imposed to protect the "health, safety, and welfare" of the people of the county. Imperial County has a somewhat similar ordinance, prompted by groundwater exports to Mexico. 33/

The Anderson Farms-Berrenda Mesa proposal draws attention to the complexity of the hydrological and legal factors involved when groundwater is included in a plan to transfer water. The costs and benefits of any transfer are difficult to assess. Some situations can be imagined in which benefits would exceed the costs. For example, a landowner using groundwater for irrigation might agree not to irrigate in order to transfer water in the amount of his normal consumptive use to another party. Institutional mechanisms should be provided to identify beneficial transfer plans as they are proposed and to facilitate these transfers, while safeguarding the interests of the area from which the water is to be exported.

E. Recommendations

1. Strong State Policy of Groundwater Resources Protection

In light of severe and extensive groundwater problems in California, the Water Rights Commission recommends that legislation be enacted to deal

with groundwater management, adjudication of groundwater rights, and conjunctive use of surface water and groundwater resources. The Commission believes that California must have a strong policy of groundwater resources protection. That policy, which recognizes the statewide interest in sound groundwater management, is stated in Section 15002 of the proposed legislation.

2. Need for Flexibility

The Commission has found that responsive legislation could take a range of forms. The first and most critical option concerns the type and degree, if any, of state involvement in groundwater management. Most other western states have integrated groundwater into state-level appropriation permit systems. California's experience with groundwater management, however, differs from that of other western states. There are a significant number of highly sophisticated, successful, local management programs already in existence in several areas of the State, carried out primarily through local water districts, and California courts have developed a very complicated framework for groundwater rights adjudication. Expert testimony at Commission workshops underscored these differences and the additional fact that groundwater basins differ greatly throughout the State. Because of the various levels and types of existing management programs and the substantial differences in groundwater basin conditions and needs in the State, the proposed legislation would allow for flexibility wherever possible. Successful implementation of the Commission's proposals will require the continued existence of strong local entities, fully capable of actively managing these valuable resources.

3. Impact on Well-Managed Areas and Areas Without Critical Problems

The basic premise of the Commission's proposed legislation is that local management, if it is properly undertaken, offers the best opportunity for

workable and effective control. Local entities are given the primary responsibility and necessary powers to develop and implement management programs. The proposed legislation provides that areas that are already well-managed will be "inactive," that is, they will not be required to have a designated groundwater management authority or a groundwater management program. The Commission also intends that proposed legislation not require any unnecessary management actions in areas without critical long-term overdraft, subsidence, or water quality problems. An area which is inactive because it is already well-managed or because it does not have critical groundwater problems may choose to have its inactive classification revoked in order, for example, to obtain the powers granted to groundwater management authorities. Section 15301 of the Commission's proposed legislation provides a petition process for groundwater management designation which has the effect of revoking an area's inactive status.

4. Local Control of Groundwater Transfers

Areas that may wish to export groundwater are likely to be classified inactive on the ground they lack critical groundwater problems. In most such areas, there is no control of groundwater export, and a groundwater appropriator could export without considering the impact on the area groundwater resources or on other groundwater users in the area. Groundwater management authorities designated or established under the legislation proposed by the Commission would automatically be granted a broad range of groundwater management powers. One important power is the power to control the export of groundwater from the groundwater management area by means of a license requirement. The groundwater management authority would control groundwater export rather than the appropriator. An export license requirement in conjunction with other groundwater management powers provides mechanisms for

spreading the benefits of export among all groundwater users in the area and for protecting the area groundwater resources.

5. Adjudication Changes

The changes in adjudication principles and procedures reflect the fact that local areas may choose the adjudication-watermaster management option, and that therefore adjudication should be procedurally facilitated and the basis for allocating rights should be conclusively defined. The courts are also the forum for testing state actions regarding local management programs and performance.

6. Synopsis of Proposed Legislation

The Commission recommends that the following legislation be enacted. In summary, the legislation provides:

a. Groundwater Resources Management Requirements

Groundwater management areas will be designated primarily on the basis of the Department of Water Resources' work pursuant to Water Code Section 12924 (S.B. 1505, Senator Nejedly, 1977). Local entities in each area without an existing, effective management operation will have the opportunity to cooperate to identify a groundwater management authority for the area, which may take any one of several forms. Alternative processes for designating a groundwater management authority for an area are provided for. The local groundwater management authority will have all necessary management powers, as included in the Groundwater Management District Act. The local authority will develop a management program for the area and perform groundwater management functions in accordance with its program. The State Water Resources Control Board will have the opportunity to evaluate and comment upon groundwater management programs, and has the authority to ask the Attorney General to seek judicial relief if management is not adequate.

b. Groundwater Management District Act

A designated groundwater management area will have the option to form a groundwater management district to act as the local groundwater management authority for the area. The powers listed in the act would also be automatically attributed to every local authority designated pursuant to Part I of the legislation.

c. Conjunctive Use of Groundwater and Surface Water

The doctrines established in case law are codified, and local groundwater management authorities have the authority to control the use of groundwater basin storage space.

d. Groundwater Rights Adjudications

The doctrine of mutual prescription is not revitalized. Instead, the basis of future groundwater adjudications is fair and equitable apportionment of rights to extract groundwater, with considerable discretion to be left in the court to avoid races-to-the-pumphouse and other problems. The rules of civil procedure, as they apply in groundwater adjudications, are improved to reduce the length and cost of adjudications.

F. Text of Proposed Legislation

The people of the State of California do enact as follows:

SECTION 1. Division 8 (commencing with Section 15000) is added to the Water Code, to read:

DIVISION 8. GROUNDWATER

PART 1. GROUNDWATER RESOURCES MANAGEMENT

CHAPTER 1. POLICY

15000. The Legislature finds and declares that the people of the State have a primary interest in the protection, management, and reasonable beneficial use of the water resources of the State, both surface water and groundwater, and that the integrated management of the state's water resources shall be attained to the extent feasible. Groundwater resources have not generally been protected and managed to the same extent as surface water resources, even though groundwater resources supply nearly half the water applied in the State in normal years, are an emergency source of supply in drought years, and are extremely important for water storage, treatment, and distribution. Groundwater resources management, coordinated with surface water resources management, is needed immediately in major portions of the State. The protection and management of the state's water resources are vital for the protection of the environment, and for the continued use and enjoyment of those resources by the people of the State.

The Legislature further finds and declares that the health, safety, and welfare of the people of the State require

that, to facilitate groundwater resources management, there be a statewide program to identify groundwater resources management areas and authorities, with due regard to surface water resources management programs; that factors of hydrology, geology, type of water use, and availability of supplemental water vary substantially from area to area within the State; that groundwater resources management can be most effectively administered by local entities within a framework of statewide policy; and that the State must be prepared to exercise its full power and jurisdiction to protect the primary interest of the people of the State in the protection, management, and reasonable beneficial use of groundwater resources if local entities do not adequately manage those resources.

15001. It is the intent of the Legislature that local groundwater management entities shall have primary responsibility for the protection and management of the groundwater resources of the State. The local groundwater management authorities in exercising any power granted in this division shall conform to the policies of this chapter.

15002. It is the policy of the Legislature that groundwater resources shall be managed to avoid any waste or unreasonable use, unreasonable method of use, or unreasonable method of extraction of groundwater; that groundwater resources shall be managed to avoid conditions of long-term overdraft, water quality and other significant environmental degradation, and subsidence except where local groundwater management authorities can justify their occurrence; that where conditions of long-term overdraft,

water quality and other significant environmental degradation, or subsidence now exist, groundwater resources shall be managed to prevent further aggravation of those conditions and programs shall be implemented to eliminate them wherever practical, except where local groundwater management authorities justify their continuance; and that groundwater resources shall be managed to use groundwater and surface water resources conjunctively wherever practical.

The Legislature, however, recognizes that in certain areas overdraft cannot presently be eliminated without causing severe economic losses and hardship. In such areas, groundwater management programs provided for in this part shall include all reasonable measures to prevent further increase in the amount of overdraft, and wherever practical shall also include any measures reasonably available to reduce overdraft.

CHAPTER 2. DEFINITIONS

15050. As used in this division:

(a) "Area" means a groundwater management area designated by the board pursuant to this part.

(b) "Authority" means a groundwater management authority designated pursuant to this part.

(c) "Available supply" means the quantity of groundwater which can be withdrawn annually from a groundwater basin without resulting in or aggravating conditions of long-term overdraft, water quality and other significant environmental degradation, or subsidence. Available supply of a groundwater basin includes the long-term average annual natural water supply,

imported water or other water which has been spread to the basin, and return flows to the basin attributable to these sources reaching the groundwater basin in the course of use.

(d) "Board" means the State Water Resources Control Board.

(e) "California Environmental Quality Act of 1970" means the California Public Resources Code, commencing with Section 21000 and as may be amended.

(f) "Conjunctive use" means the coordinated operation of a groundwater basin and groundwater and surface water supplies. "Conjunctive use" includes increased groundwater use or decreased groundwater replenishment with surface supplies in years when surface supplies are less than normal, and in years of more abundant surface supplies the increased use of surface water in lieu of groundwater, either to allow groundwater levels to recover, or to replenish artificially groundwater supplies. "Conjunctive use" also includes long-term storage of water in a groundwater basin.

(g) "Department" means the Department of Water Resources.

(h) "Extraction" means the act of obtaining groundwater, by pumping or other controlled means, but does not include the extraction of groundwater incidental to the production of oil and gas, to the production of geothermal energy, to a bona fide mining operation, or to a bona fide construction project, unless the groundwater is used or sold for a beneficial purpose.

(i) "Extraction facility" means any device or method, mechanical or otherwise, for the extraction of groundwater from within the groundwater management area.

(j) "Groundwater" means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water. Groundwater does not include water subject to the permit and license system administered by the State Water Resources Control Board.

> [Comment: The Board has jurisdiction over the underflow of surface streams and subterranean streams flowing through known and definite channels (Water Code Section 1200). These categories of underground water are included in the Board's appropriation permit system because extraction, especially from underflow, generally directly affects surface water flows. This definition is intended to avoid jurisdictional overlap between the Board and groundwater management authorities.]

(k) "Groundwater basin" means a geologically and hydrologically defined area which contains one or more aquifers which store and transmit water and will yield significant quantities of water to wells.

(l) "Groundwater Management District" means a groundwater management district established pursuant to Part II (commencing with Section 16000) of this division.

(m) "Groundwater rights adjudication" means the determination of substantially all rights in a groundwater basin or area subject to the adjudication.

(n) "Inactive classification" means board classification of areas for which no groundwater management authority must

be designated and no groundwater management program must be prepared.

(o) "Local entity" means: (i) any city, county, public utility, mutual water company, or general or special water district, provided any of such entities are authorized to acquire, develop, or manage water supplies; (ii) a water replenishment district and any other special district with replenishment powers and the power to levy assessments on groundwater extraction; and (iii) a watermaster appointed by a court under an adjudication covering substantially all groundwater extraction in the groundwater management area, which watermaster is vested with replenishment powers or other groundwater management functions. A district, agency, or authority, including a joint powers authority, which has member entities, and the member entities, shall each be considered to be a "local entity." "Local entity" includes a local entity with jurisdiction over an area which is within or partially within a groundwater management area or a local entity which extracts more than 10 percent of the groundwater extracted in an area.

(p) "Long-term overdraft" means the condition of a groundwater basin where the average annual amount of water extracted for a period of five years or more exceeds the long-term average annual supply of water to the basin, plus any temporary surplus.

> [Comment: "Overdraft" is defined in California case law. According to Los Angeles v. San Fernando, "overdraft occurs only if extractions from the basin exceed its safe yield plus any ... temporary

surplus." ((1975) 14 Cal.3d 199, 280.) Safe yield is calculated on the basis of a long base period, 29 years in San Fernando, for which adequate hydrological data is available and for which precipitation figures are representative. It is possible, under the case law definition, to have "overdraft" in a single year.]

(q) "Native water" means the supply of water to an area from all sources other than supplemental water and other than any return flows resulting from the use of supplemental water.

(r) "Operator" means the person who operates an extraction facility. "Operator" also means the person to whom the extraction facility is assessed by the county assessor or, if not separately assessed, the person who owns the land upon which an extraction facility is located.

(s) "Person" means federal and state agencies, local entities, private corporations, firms, partnerships, individuals, or groups of individuals whether legally organized or not.

(t) "Program" means a groundwater management program prepared for each area by a groundwater management authority pursuant to this part.

(u) "Replenishment" means spreading water over a permeable area for the purpose of allowing it to percolate to the groundwater basin, or injecting water into the groundwater basin, or otherwise adding water to the groundwater basin which without such effort would not augment the groundwater supply.

(v) "Supplemental water" means surface water or groundwater imported from outside the watershed or watersheds of basins in the groundwater management area and flood waters that are conserved and saved within the watershed or watersheds which would

otherwise have been lost or would not have reached the area groundwater basins.

(w) "Temporary surplus" means the amount of water that can be extracted from a basin, without adversely affecting the available supply of a basin, to provide storage space for natural recharge that would be lost during wet years if it could not be stored in the basin.

(x) "Water year" means October 1 of one calendar year to September 30 of the following calendar year.

CHAPTER 3. GROUNDWATER DATA

15100. The department, in cooperation with local entities, shall conduct investigations and studies to identify areas with both significant groundwater resources and significant groundwater use, to identify areas with existing groundwater or surface water management programs, to identify existing or threatened conditions of long-term overdraft, water quality or other significant environmental degradation, or subsidence in those areas, and to identify areas with significant existing and potential groundwater basin storage space.

Not later than 180 days after the effective date of this division, the department shall transmit the results of its preliminary investigations and studies to the board.

15120. The department may, in cooperation with any local entity or designated groundwater management authority, conduct investigations and studies to meet groundwater management program and performance needs of groundwater management areas.

Any such investigations or studies by the department shall be pursuant to a cooperative agreement between the department and the local entity or designated groundwater management authority. Allocation of the costs of the investigations and studies conducted pursuant to this section shall be as set forth in the cooperative agreement with substantial participation or cost sharing, or both, by the local entity or designated groundwater management authority.

[Comment: It is anticipated that although cooperative agreements may be made to carry out the requirements of Section 15400 in particular, cooperative agreements with the department may also be entered into for inactive or non-designated areas of the State.]

15130. The department shall develop and conduct a statewide program for data collection and data storage and retrieval to facilitate groundwater management planning and activities.

The department may require any local entity or designated groundwater management authority to make available to it groundwater data the entity or authority obtains, for inclusion in the statewide groundwater data storage and retrieval system.

15131. The department shall recommend minimum standards for local groundwater data programs and shall transmit its recommendations to local entities and designated groundwater management authorities from time to time.

[Comment: The department's programs and standards under Section 15130 and 15131 will apply to all areas of the State, including inactive and non-designated areas.]

CHAPTER 4. GROUNDWATER MANAGEMENT AREAS

15200. The report to the Governor and the Legislature to be submitted by the department pursuant to Water Code Section 12924, identifying groundwater basin boundaries for the State, shall establish groundwater management area boundaries for all purposes of this division unless disapproved within 100 legislative days of the effective date of this division, by a concurrent resolution of the Legislature. Further, the Legislature by statute may modify boundaries identified by the department, and the boundaries, as modified, shall be the groundwater management area boundaries for all purposes of this division.

Groundwater management areas shall be areas within which groundwater can be effectively managed and shall encompass all areas of the State with significant groundwater resources. Groundwater management area boundaries shall be based, to the extent practical, on the boundaries of local entities concerned with the management of surface water or groundwater, as well as geological and hydrological groundwater basin boundaries.

[Comment: Water Code Section 12924 provides:

> 12924. (a) The department shall, in conjunction with other public agencies, conduct an investigation of the state's groundwater basins. The department shall identify the state's groundwater basins on the basis of geological and hydrological conditions and consideration of political boundary lines whenever practical. The department shall also investigate existing general patterns of groundwater pumping and groundwater recharge within such basins to the extent necessary to identify basins which are subject to critical conditions of overdraft.

(b) The department shall report its findings to the Governor and the Legislature not later than January 1, 1980.]

15210. Not later than 180 days after the effective date of this division, the board, after notice and hearing, may recommend groundwater management area boundaries for areas encompassing basins identified by the department whose establishment as groundwater management areas was disapproved by the Legislature pursuant to Section 15200. The board's recommendations shall be consistent with concerns expressed in the concurrent resolution.

The board shall transmit its recommendations and the reasons therefore to the Legislature. Boundaries recommended pursuant to this section shall be the groundwater management area boundaries for all purposes of this division unless disapproved by statute within 100 legislative days of receipt of the Board's recommendations.

A hearing shall be held in each area considered, and the board shall fully consider the boundaries of local entities in the area concerned with the management of surface water or groundwater. The board shall by regulation establish appropriate notice requirements. Notice shall include a preliminary draft of the board's area boundary designations.

[Comment: If groundwater management area boundaries are disapproved pursuant to Sections 15200 and 15210, no groundwater management requirements will apply to the areas in question.]

15220. The board shall publish notice of designation of a groundwater management area. The board shall by regulation establish appropriate notice requirements.

15221. Any petition for a writ of mandate proceeding under Section 1094.5 of the Code of Civil Procedure to review the board's designation of a groundwater management area shall be commenced within 60 days after receipt of notice of the board action.

Failure to file the petition within 60 days shall preclude any person from challenging the board action in any administrative or judicial proceedings.

15230. Action taken by the board pursuant to this chapter does not have a significant effect on the environment and is exempt from the provisions of the California Environmental Quality Act of 1970.

15231. The provisions of the Knox-Nisbet Act, Chapter 6.6 (commencing with Section 54773) of Part I, Division 2, Title 5 of the Government Code shall not be applicable to procedures set forth in this division.

CHAPTER 5. INACTIVE CLASSIFICATION

15250. Not later than 180 days after the effective date of this division, the board, after notice and hearing, shall classify as inactive the groundwater management areas established in Section 15200 or as designated in 15210 that shall not be subject at that time to groundwater management authority designation and program requirements.

A hearing shall be held in each area considered, and the board shall by regulation establish appropriate notice requirements.

15251. The board shall classify as inactive:

(1) Groundwater management areas where, as of January 1, 1979, there is a final judgment covering substantially all groundwater extraction in the area, with reserved jurisdiction in the court.

(2) Groundwater management areas where, as of January 1, 1979, and for so long as the litigation is pending, a major portion of groundwater production in the area is the subject of litigation.

(3) Groundwater management areas where, as of January 1, 1979, area groundwater management includes a groundwater replenishment program which has eliminated or is generally progressing with the elimination of long-term overdraft, where groundwater extraction is substantially metered, and where groundwater extraction is subject to replenishment assessments.

(4) The board shall classify as inactive groundwater management areas for which the board determines groundwater management is not needed at that time.

[Comment: Inactive classification pursuant to this chapter may be made only within the time provided in Section 15250. Even though, after a period of time, it appears that an area qualifies as inactive under Section 15251 (1), (2), or (3), that area will not be classified inactive and therefore must continue to meet the program and management requirements of this division.

Inactive classification, however, can be revoked if the requirements of Section 15251 are no longer met, or if a local entity petitions and is successfully designated the groundwater management authority for an area, notwithstanding inactive classification of the area, under Section 15300.]

15260. The board shall periodically review the inactive classification of groundwater management areas. The board shall, after notice and hearing, revoke inactive classification for any groundwater management area for which the requirements of Section 15251 are no longer met.

15261. The board shall publish notice of classification of an area as inactive or revocation of inactive classification of an area. The board shall by regulation establish appropriate notice requirements.

15262. Any petition for a writ of mandate proceeding under Section 1094.5 of the Code of Civil Procedure to review the board's classification of an area as inactive, or revocation of inactive classification for an area shall be commenced within 60 days after notice of the board action.

Failure to file the petition within 60 days shall preclude any person from challenging the board action in any administrative or judicial proceedings.

15270. Action taken by the board pursuant to this chapter does not have a significant effect on the environment and is exempt from the provisions of the California Environmental Quality Act of 1970.

CHAPTER 6. GROUNDWATER MANAGEMENT AUTHORITIES

15300. If, within 180 days after a groundwater management area is established or designated or inactive classification for an area is revoked, local entities in the area cooperate to identify a responsible authority to carry out the groundwater management program and performance requirements of this act for

the area and transmit their nomination to the board, the board shall, after notice, designate the authority nominated by the local entities as the groundwater management authority for the area, unless an objection is filed by a local entity in the area with the board within 30 days after receipt of notice that the nomination has been transmitted. The board shall by regulation establish appropriate notice requirements.

Local entities in a groundwater management area may identify one of the following as the responsible groundwater management authority for the area, provided that the authority would include within its boundaries or jurisdiction all or substantially all of the groundwater management area:

(1) A local entity which is a public agency.

(2) A joint powers authority organized under Section 6502.1 of the Government Code.

[Comment: Government Code Section 6502.1 would be added to provide:

If authorized by their legislative or other governing bodies, two or more public agencies by agreement may jointly exercise the powers enumerated in Chapter 4 (commencing with Section 16200) of Part II of Division 8 of the Water Code for the purposes of carrying out the groundwater management provisions of Part I (commencing with Section 15000) of Division 8 of the Water Code.]

(3) A groundwater management district defined in Part II (commencing with Section 16000) of this division.

15301. A local entity which is a public agency having jurisdiction over all or substantially all of a groundwater management area may, within 180 days after a groundwater management area is established or designated or inactive classification

for an area is revoked, or at any time in an area classified as inactive, petition the board to designate the local entity as the groundwater management authority for the area and the board shall, after notice, designate the local entity as the groundwater management authority for the area, unless an objection is filed by a local entity in the area with the board within 30 days after receipt of notice that the petition has been transmitted.

The board shall by regulation establish appropriate notice requirements.

If a local entity successfully petitions and is designated the groundwater management authority for an area which has been classified inactive, the inactive classification for that area shall be deemed revoked.

15310. If within 180 days after a groundwater management area is established or designated or inactive classification for an area is revoked, local entities in an area do not nominate a responsible authority or a local entity does not petition to be designated to carry out the groundwater management program and performance requirements of this act, or an objection to the nomination or petition is filed with the board, the board shall determine whether one or more local entities in the area which are public agencies each covers all or substantially all of the area.

The board, after notice and hearing, shall designate one such local entity as the groundwater management authority for the area and shall certify the other such entities as alternative

designees. The board shall submit its designation and any certifications to the Legislature. The designation shall be effective unless disapproved within 100 legislative days of submission by a concurrent resolution of the Legislature. The Legislature may, by statute, identify one of the certified local entities as the groundwater management authority for the area. If no certified local entities are identified by statute within the 100 legislative day period, then, upon disapproval and failure by statute to identify a certified local entity as the groundwater management authority for the area, the provisions of Sections 15320 and 15321 shall apply.

The board shall by regulation establish appropriate notice requirements.

15320. If, pursuant to Section 15310, the board determines that no local entity in a groundwater management area which is a public agency covers all or substantially all of the area, the board shall give notice that local entities in the area shall have an additional 90 days to create a joint powers authority, to be organized under Section 6502.1 of the Government Code, which shall include within its jurisdiction all or substantially all of the groundwater management area. If such a joint powers authority is organized within the 90 days, the board shall, after notice, designate the joint powers authority as the groundwater management authority for the area.

The board shall by regulation establish appropriate notice requirements.

15321. If, pursuant to Section 15310, the board determines that no local entity in a groundwater management area which is a public agency covers all or substantially all of the area, and if no joint powers authority is organized for the area as allowed by Section 15320, then a groundwater management district, Part II (commencing with Section 16000) of this division, shall automatically be formed in the area, and shall be the designated groundwater management authority for the area.

The first board of directors for a groundwater management district formed pursuant to this section shall be appointed on a pro rata basis according to area by the Boards of Supervisors of counties whose jurisdiction is included in whole or in part within the groundwater management area within 90 days of district formation. However, each such county shall appoint at least one director.

15330. The groundwater management authority designated for an area shall have all the powers and authority of a groundwater management district provided for in Chapters 4 and 5 of Part II (commencing with Section 16200) of this division.

> [Comment: This section automatically adds the planning, management, and financing powers of the Groundwater Management District Act (Part II of this division) to any entity or joint powers authority designated the groundwater management authority for an area.]

15340. The board shall publish notice of the designation of groundwater management authorities. The board shall by regulation establish appropriate notice requirements.

15350. Any petition for a writ of mandate proceeding under Section 1094.5 of the Code of Civil Procedure to review the board's designation of a groundwater management authority shall be commenced within 60 days after notice of the designation is received.

Failure to file the petition within 60 days shall preclude any person from challenging the board's determination in any administrative or judicial proceedings.

15352. Designation of a groundwater management authority by the board pursuant to this chapter does not have a significant effect on the environment and is exempt from the provisions of the California Environmental Quality Act of 1970.

CHAPTER 7. GROUNDWATER MANAGEMENT PROGRAMS

15400. Not later than two years after a groundwater management authority is designated, the authority shall adopt a groundwater management program for the groundwater management area. Each program shall be effective upon adoption by the authority. The authority shall transmit the program to the board for evaluation and comment.

15405. The board shall formulate and adopt rules and regulations for the preparation of groundwater management programs. The rules and regulations shall conform to the policies set forth in Section 15002.

15410. A groundwater management program shall include a statement of management objectives and the factors to be considered shall include but not necessarily be limited to:

(1) The hydrological and geological characteristics of the groundwater management area.

(2) Present groundwater and surface water management programs and the status of any adjudications or contractual arrangements affecting water supply and delivery.

(3) The present and probable future availability of supplemental water supplies.

(4) Present and probable future reasonable and beneficial uses of water.

(5) The groundwater conditions that could reasonably be achieved through alternative management programs, including mitigation measures which could be taken to minimize any significant adverse environmental impact.

(6) The economic consequences of alternative management programs, including the effect of limitations on extraction.

(7) The probable future condition of groundwater resources with no additional groundwater management and the economic consequences of no additional management.

15411. A groundwater management program shall also include a plan of implementation for achieving groundwater management objectives which shall describe the actions necessary to achieve the groundwater management objectives and set a time schedule for actions to be taken.

15412. Groundwater management objectives shall conform to the policies set forth in Section 15002.

15413. Groundwater management programs shall be reviewed periodically and may be revised. Substantial revisions of programs shall be transmitted to the board for evaluation and comment, and shall be subject to all requirements and actions applicable to groundwater management programs.

15420. Upon receipt of a groundwater management program, the board shall evaluate the program to determine whether the groundwater management objectives stated in the program conform to the policies set forth in Section 15002 and whether the implementation plan will be adequate to achieve the groundwater management objectives stated in the program. The board shall notify the groundwater management authority of its conclusions and shall state the reasons for these conclusions.

At any point in its evaluation the board may give notice and hold a hearing on the program.

15430. If no groundwater management program is transmitted to the board for an area, or if a program is transmitted to the board and, after notice and hearing, is found not to conform to the policies set forth in Section 15002, or to have an inadequate implementation plan, the board may request that the Attorney General seek judicial relief. The board shall by regulation establish appropriate notice requirements.

The Attorney General, at the request of the board, shall file in the superior court an action for: (1) an adjudication to limit total groundwater extraction in the area, determine the rights to groundwater in the area, and appoint a watermaster to prepare and carry out a groundwater management program under the

continuing jurisdiction of the court, and for issuance of a preliminary injunction against increased extraction in the groundwater management area during the pendency of the adjudication; (2) imposition of an appropriate groundwater management program, and for issuance of a preliminary injunction against increased extraction in the groundwater management area until a program is prepared; or (3) other appropriate relief. An action shall be dismissed if it is shown that the groundwater management program is in conformity with the policies set forth in Section 15002.

For the purpose of venue, any action filed by the Attorney General pursuant to this section shall be deemed to be a local action.

15431. The board's request that the Attorney General file an action pursuant to Section 15430 does not have a significant effect on the environment and is exempt from the provisions of the California Environmental Quality Act of 1970.

> [Comment: It is anticipated that groundwater management authorities will comply with the requirements of the California Environmental Quality Act of 1970 in preparing groundwater management programs.
>
> The board may be able to obtain certification by the Resources Agency of its program approval and other program-related actions pursuant to Public Resources Code Section 21080.5.]

CHAPTER 8. GROUNDWATER MANAGEMENT PERFORMANCE

15500. Groundwater management authorities shall manage areas in accordance with their adopted groundwater management programs.

15510. At least every two years, each groundwater management authority shall prepare a report and transmit it to the board for evaluation and comment. The report shall detail the groundwater management authority's management actions and shall analyze and evaluate its groundwater management performance in terms of management objectives and implementation plans contained in the groundwater management program.

15520. Upon receipt of a groundwater management performance report, the board may give notice and hold a hearing on the report. The board shall by regulation establish appropriate notice requirements.

The board shall evaluate groundwater management performance by comparing performance to the management objectives and implementation plans contained in the groundwater management program for the area.

If the board determines that groundwater management performance in an area is inadequate, it shall so notify the groundwater management authority and shall state the reasons for its conclusion.

15530. If no groundwater management performance report is transmitted to the board for an area, or if a report is transmitted to the board but, after notice and hearing, performance is found to be inadequate, the board may request that the Attorney General seek judicial relief. The board shall by regulation establish appropriate notice requirements.

The Attorney General, at the request of the board, shall file in the superior court an action for: (1) an adjudication to limit total groundwater extraction in accordance with the groundwater management program for the area, determine the rights to groundwater in the area, and appoint a watermaster to manage the area in accordance with the groundwater management program, and for issuance of a preliminary injunction against increased extraction in the area during the pendency of the adjudication; (2) an order directing the groundwater management authority adequately to perform groundwater management actions according to the approved groundwater management program for the area, and for issuance of a preliminary injunction against increased extraction in the area until performance is adequate; or (3) other appropriate relief. An action shall be dismissed if it is shown that groundwater management performance is in conformity with the policies set forth in Section 15002.

For the purpose of venue, any action filed by the Attorney General pursuant to this section shall be deemed to be a local action.

15531. The board's request that the Attorney General file an action pursuant to Section 15530 does not have a significant effect on the environment and is exempt from the provisions of the California Environmental Quality Act of 1970.

PART II. GROUNDWATER MANAGEMENT DISTRICTS

[Comment: Provisions of existing water district laws were used extensively in preparing this part. The following statutes were most frequently used: Orange County Water District Act (Cal. Water Code App. Section 40-1 et seq. (West 1968, West Supp. 1978)); Water Replenishment District Act (Cal. Water Code Section 60000 et seq. (West 1966, West Supp. 1978)); County Waterworks Districts Act (Cal. Water Code Section 55000 et seq. (West 1966)). In addition, the judgment in the Upper San Gabriel Valley Municipal Water District v. City of Alhambra, Civil No. 924128, Cal. Super. Ct., Los Angeles County, January 4, 1973, was referred to.]

CHAPTER 1. INTRODUCTORY PROVISIONS

Article 1. Short Title

16000. This part shall be known and may be cited as the Groundwater Management District Act.

Article 2. General Provisions

16010. The provisions of this part apply to the management of groundwater within all groundwater management areas of the State established or designated pursuant to Chapter 4 (commencing with Section 15200) of Part I of this division.

[Comment: As provided in Section 15330 of Part I of this division, all the powers and authority provided for in Chapters 4 and 5 of this part (commencing with Section 16200) shall automatically accrue to the groundwater management authority designated pursuant to Chapter 6 (commencing with Section 15300) of Part I of this division.]

16012. The powers and duties enumerated in this part shall, except as otherwise expressly provided, be exercised and performed by the board of directors. In the event an existing local entity has facilities available and adequate to accomplish any part of the purposes of a groundwater management district, the

groundwater management district shall investigate and determine the cost of accomplishing the purpose through the existing local entity. The board of directors shall make a finding as to whether or not the purpose proposed to be accomplished by the groundwater management district can be accomplished for the best interests of the area by an existing local entity. If the board of directors finds that it would be in the best interests of the area to be benefitted, it shall so arrange for the accomplishment of the purpose by the local entity if the local entity agrees. The purpose of this section is to avoid duplication of similar operations by existing local entities and groundwater management districts.

CHAPTER 2. FORMATION

16050. A groundwater management district may be formed pursuant to the provisions of this chapter, or automatically, as provided by Section 15321 of Part I of this division.

> [Comment: Section 15321 provides for the automatic creation of a groundwater management district for an area as a final resort in the process of designating a groundwater management authority for the area. Sections 15300, 15301, 15310 and 15320 each provide an avenue for designation of an authority available before a groundwater management district is automatically formed pursuant to Section 15321.]

16055. A petition for the formation of a groundwater management district, which may consist of any number of separate instruments, shall be filed with the board of supervisors of the principal county, signed by registered voters residing within the boundaries of the area. The petition must be signed by registered voters equal in number to at least five percent of the number of

registered voters residing in the area. Where the area is situated in more than one county, the petition must be signed by at least five percent of the voters of each part of the area situated within each county. Each instrument shall designate in which county it was circulated and shall contain only the names of persons in that county.

For the purposes of this chapter only, "principal county" means the county in which the greatest portion of a groundwater management area lies.

16056. An undertaking sufficient to pay the cost of formation procedures, to be approved by the board of supervisors of the principal county, shall be filed with the petition, conditioned that the sureties shall pay the cost in case the formation of the groundwater management district is not effected.

16057. The petition shall describe the boundaries of the area and request that an election be called for the purpose of submitting to the registered voters of the area the proposition that a groundwater management district be formed and for the purpose of electing directors for the groundwater management district should it be formed.

16058. The failure of the petition to contain any of the matters required to be contained therein shall not affect the legality of the formation of the groundwater management district if it is thereafter formed.

16059. Copies of the petition shall be submitted to the clerk of each county in which the groundwater management area is situated. If the area is situated within more than one county,

the petitions submitted to the clerk of each county shall be only those petitions containing signatures of voters in that county.

16060. Within 10 days of the date of filing the copy of the petition with the county clerk of each county within which the groundwater management area is situated, each clerk shall examine the copy to determine whether the petition is signed by the required number of voters within the portion of the area which lies within the county. When each county clerk has completed the examination, each shall attach to the copy of the petition a dated certificate showing the result of the examination, and deliver the copy with the certificate to the board of supervisors of the principal county.

16061. If the board of supervisors of the principal county finds that the petition and certificates indicate the petition to be sufficient, the board of supervisors of the principal county shall fix a time for hearing thereon, not less than 60 days after the certificates have been delivered by the county clerks.

16062. The board of supervisors of the principal county shall publish one copy of said petition within each county in which a part of the groundwater management area is located, together with a notice of the time, place, and purpose of the hearing, pursuant to Section 6066 of the Government Code.

16063. At the public hearing, the board of supervisors of the principal county shall hear all evidence relevant to the advantages and disadvantages to be derived by the persons or property within the area from a groundwater management district.

16064. Within 60 days of the hearing, the board of supervisors of the principal county shall call a special election for the purpose of determining whether a groundwater management district should be formed and simultaneously for the purpose of selecting five directors for the groundwater management district if it is formed.

16065. For the purposes of the election, the board of supervisors of the principal county shall establish one or more precincts within the area, designate polling places, and appoint one inspector, one judge, and one clerk for each precinct.

16066. A notice of the election shall be published in the portion of each county which falls within the area, pursuant to Section 6061.3 of the Government Code. Publication shall be complete at least 7, but not more than 28, days prior to the date of the election. The notice of election shall describe the boundaries of the area and state that the election is for the purpose of forming a groundwater management district and for the purpose of electing five directors who will take office if the groundwater management district is formed.

16067. The provisions of the Elections Code so far as they may be applicable shall govern the election, except as otherwise provided in this part.

16068. In the election the first five directors shall be elected and the following measure shall be submitted:

"Shall a groundwater management district be formed in ... area?"

16069. The candidates shall declare their candidacy, the election shall be held and conducted, the vote canvassed, the result declared and the certificate of election issued in accordance with the provisions of the Elections Code, so far as they may be applicable, except as otherwise provided in this part. No person shall be entitled to vote at any election under the provisions of this act unless such person possesses all of the qualifications required of voters under the Elections Code.

16070. Within seven days after the election the vote shall be canvassed by the board of supervisors of the principal county. If a majority of the votes cast in the election are in favor of establishing a groundwater management district, the board of supervisors of the principal county shall declare the groundwater management district to be organized.

16071. An informality in any proceeding or informality in the conduct of the election, not substantially affecting adversely the legal rights of any citizen, shall not be held to invalidate the establishment of a groundwater management district. Any proceedings wherein the validity of the establishment is denied shall be commenced within 30 days from the date the board declares the groundwater management district to be organized. Otherwise, the organization and legal existence of the groundwater management district and all proceedings in respect thereto shall be held valid and in every respect thereto legal and incontestable.

CHAPTER 3. INTERNAL ORGANIZATION

Article 1. Board of Directors

16100. Each groundwater management district shall have a board of five directors, all of whom shall be registered electors residing within the groundwater management area and all of whom shall be elected at large.

16101. The terms of office of elective officers in all new groundwater management districts shall be determined pursuant to Section 23506 of the Elections Code.

16102. The term of office of each director subsequent to the directors elected at the formation election is four years.

16103. All vacancies on the board of directors shall be filled pursuant to Section 1780 of the Government Code. If a person elected fails to qualify, the office shall be filled as if there were a vacancy in the office. Appointed directors shall be required to run for election in the next succeeding general district election.

16104. Within 20 days after receiving a certificate of election, or being appointed, each elective officer shall take and subscribe to the official oath and file it in the office of the groundwater management district and execute the required bond.

Article 2. Board of Directors Action

16105. Within 30 days after the election of the first directors and thereafter within 30 days after each general district election the directors shall meet and organize as a board of directors and may thereupon transact any business of the groundwater management district.

16106. At its first meeting the board of directors shall provide for the time and place of its regular meetings and for the manner of calling special meetings.

16107. A majority of the board of directors shall constitute a quorum for the transaction of business.

16108. No ordinance, motion, or resolution shall be passed or become effective without the affirmative vote of a majority of the members of the board of directors.

16109. Except where action is taken by the unanimous vote of all directors present and voting, the ayes and noes shall be taken upon the passage of all ordinances, resolutions, or motions and entered upon the minutes of the board of directors.

Article 3. Officers and Employees

16112. At its first meeting the board of directors shall elect a president and a vice-president from its members. Thereafter, a president and a vice-president shall be selected at the first meeting in January of each odd-numbered year.

16113. When the president of the board of directors is absent or unable to act at any meeting of the board of directors, the vice-president shall have the power to perform all the duties of the president of the board of directors until the president of the board of directors returns to the performance of his duties.

16114. At its first meeting, or as soon thereafter as practicable, the board of directors shall appoint a secretary, treasurer, attorney, general manager, auditor, and engineer, define their duties and fix their compensation. Each shall serve

at the pleasure of the board of directors, and may employ such additional assistants and employees as they may deem necessary efficiently to maintain and operate the groundwater management district.

16115. The treasurer shall draw checks or warrants to pay demands when such demands shall have been audited and approved in the manner prescribed by the board of directors.

16116. The board of directors may consolidate any two or more of the offices of general manager, secretary, and treasurer.

16117. A director shall not be eligible for any position appointed by the board of directors.

16118. The general manager, secretary, and treasurer, and all other employees or assistants of said groundwater management district who may be required to do so by the board of directors, shall give such bonds to the groundwater management district conditioned for the faithful performance of their duties as the board of directors from time to time may provide. All bonds shall be in the form prescribed for the official bonds of county officers. The premiums on such bonds shall be paid by the groundwater management district.

Article 4. Compensation

16120. Each of the members of the board of directors shall receive for each attendance at the meetings of the board of directors fifty dollars ($50). No director should receive pay for more than six meetings in any month.

16121. The board of directors may authorize a director to receive traveling and other reasonable expenses actually incurred when performing duties for the groundwater management district other than attending board of directors meetings.

16122. The board of directors shall fix the compensation to be paid to all officers and employees.

Article 5. Conduct of Elections

16135. The provisions of the Uniform District Election Law, commencing with Section 23500 of Part 3 of Division 14 of the Elections Code, so far as they may be applicable, shall govern all general and all special groundwater management district elections, except as otherwise provided in this part.

16136. No person shall vote at any groundwater management district election held under the provisions of this act who is not a voter within the meaning of the Elections Code, residing in the groundwater management district area. If the area has been divided into divisions pursuant to Section 16152, a voter must also reside in the division of the area in which he casts his vote. For the purpose of registering voters who shall be entitled to vote at groundwater management district elections, the county clerk or registrar of voters is authorized, in any county in which part of a groundwater management district is situated, to indicate upon the affidavit of registration whether the voter is a voter of the area.

16137. In case the boundary line of a groundwater management district area crosses the boundary line of a county election

precinct, only those voters within the area and within the precinct who are registered as being voters within the area shall be permitted to vote. For that purpose the county clerk or registrar of voters is hereby empowered to provide two sets of ballots within the precincts, one containing the names of candidates for office in groundwater management districts and the other not containing the names.

Article 6. Changes in Organization

16150. The number of directors on the board of directors of a groundwater management district shall be increased upon approval by a majority of the voters of a proposition therefor submitted to them at a general or special groundwater management district election; provided, however, that there shall always be an odd number of directors on the board of directors and never less than five. If a change is made when the method of voting is by division, the number of divisions will be changed correspondingly, so that each director is elected from one division.

16151. A proposition to change the number of directors of a groundwater management district may be submitted to the voters by resolution of the board of directors or upon initiative petition signed by 20 percent of the electors in the groundwater management district and submitted at least 120 days prior to any general election.

16152. The method of election of directors on the board of directors of a groundwater management district shall be changed to election by divisions or by the groundwater management district

at large upon approval by a majority of the voters of a proposition therefor submitted to them at a general or special groundwater management district election.

16153. A proposition to change the method of election of directors on a board of directors may be submitted to the voters by resolution of the board of directors or upon initiative petition signed by 20 percent of the electors in the groundwater management district and submitted at least 120 days prior to any general election.

16154. The board of directors shall divide the groundwater management district into divisions as nearly equal in population as may be practicable whenever the method of voting is changed to voting by division or when a change in divisions is necessitated by a change in the number of directors.

16160. Positions on the board of directors created by an increase in the number of directors shall be treated as vacancies.

CHAPTER 4. POWERS

Article 1. General Powers

[Comment: The powers established in Section 16200 exceed the powers now available to any local entity, including watermasters under court jurisdiction.]

16200. The groundwater management district is hereby declared to be a corporate and political body and as such shall have the following powers:

(1) To have perpetual succession.

(2) To sue and be sued in all actions and proceedings in all courts and tribunals of competent jurisdiction.

(3) To adopt a seal and alter it at pleasure.

(4) To take by grant, purchase, gift, devise, or lease, to hold, use and enjoy, and to lease, convey or dispose of, real and personal property of every kind, within or without the groundwater management area, necessary or convenient to the full exercise of its power.

(5) Within or outside of the groundwater management area to construct, purchase, lease, or otherwise acquire and dispose of and to operate and maintain necessary waterworks and other works, treatment works, machinery, facilities, canals, conduits, wells, waters, water rights, spreading grounds, injection facilities, lands, rights and privileges useful or necessary to conserve, replenish, and manage the groundwater supplies within the area or to augment and protect the quality of the common water supplies of the area and purposes incidental thereto.

(6) To carry out the purposes of this part to commence, maintain, intervene in, defend and compromise, in the name of the groundwater management district authority or otherwise, and to assume the costs and expenses incurred by the groundwater management district in actions and proceedings now or hereafter begun to adjudicate any groundwater basin within the groundwater management area, to prevent (a) interference with water or water rights used or useful to lands within the area, (b) diminution of the quantity or deterioration of quality of the water supply of the area, (c) pollution or contamination of the water supply of

the area, (d) unlawful exportation of water from the area, or (e) interference with the water or water rights used or useful in the area that may endanger or damage the inhabitants, lands, or use of water in the area.

(7) To exercise the right of eminent domain to take any property necessary to the exercise of any of the powers of this part, except that the groundwater management district shall not have the right of eminent domain as to water, water rights, reservoirs, pipelines, water distributing systems, waterworks, or powerplants, all or any of which are already devoted to beneficial or public use.

(8) To provide for the protection and enhancement of the environment within and without the groundwater management area, and to provide, on its own or by agreement with any local entity or person, for the recreational use of the lands, facilities, and works of the groundwater management district which shall not interfere or be inconsistent with the primary use and purpose of the lands, facilities, and works by the groundwater management district.

(9) To act jointly with or cooperate with the United States or any agency thereof, the State of California or any agency thereof, any county of the State of California, districts of any kinds, public and private corporations, and any person, to carry out the provisions and purposes of this part; in such joint or cooperative activities, the groundwater management district may act within or outside of the groundwater management area.

(10) To cause charges or assessments to be levied, as provided in Chapter 5 (commencing with Section 16400) to accomplish the purposes of this part.

(11) To incur indebtedness, and to issue bonds in the manner provided in Chapter 5 (commencing with Section 16460) of this part.

(12) To make contracts for services, construction, and other purposes, employ professional and technical personnel, employ labor, and to do all acts necessary for the full exercise of all powers vested in the groundwater management district or any of the officers thereof, by this part.

(13) To do any act necessary for the common benefit of the groundwater management area and for the purpose of managing groundwater in the groundwater management area. Without being limited to the following enumerations, a groundwater management district may, for the purposes of groundwater management within the groundwater management area:

(a) Provide for the conjunctive use of groundwater and surface water resources within the groundwater management area;

(b) Store water in and recapture water from surface reservoirs or groundwater basins within or outside of the groundwater management area;

(c) Regulate the storage of water and the use of groundwater basin storage space in groundwater basins within the groundwater management area, as provided in Article 5 (commencing with Section 16300) of this chapter;

(d) Acquire water and water rights within or outside of the groundwater management area;

(e) Purchase and import water into the groundwater management area;

(f) Conserve and reclaim water within or outside of the groundwater management area and require conservation practices and measures within the area;

(g) Buy and sell water and water rights at such rates as shall be determined by the board of directors;

(h) Exchange water and water rights;

(i) Export water and control the export of water from the groundwater management area, as provided in Article 4 (commencing with Section 16260) of this chapter;

(j) Treat, inject, extract, or otherwise control water to improve and protect the quality of the groundwater supplies within the groundwater management area, including control of drainage problems;

(k) Limit extraction to respond to conditions of long-term overdraft, subsidence, water quality and other significant environmental degradation, well interference, or the threat of any of the above, as provided in Article 4 (commencing with Section 16260) of this chapter;

(l) Impose license requirements on the construction of new extraction facilities, deepening of existing extraction facilities, or reactivation of abandoned extraction facilities where license requirements do not duplicate any existing county or other license requirements;

(m) Carry on technical and other necessary investigations of all kinds and collect data necessary to carry out the provisions of this part, including, but not limited to, the requirements of Article 2 (commencing with Section 16220) of this chapter, and for this purpose the groundwater management district shall have the right of access through its authorized representative to all properties within the area;

(n) Require the registration of extraction facilities and the filing of groundwater extraction statements, as provided in Article 3 (commencing with Section 16240) of this chapter; and

(o) Fix the terms and conditions of any contract under which operators of groundwater extraction facilities within the area may agree to use water from an alternative supplemental water supply in lieu of groundwater, and to such end the groundwater management district may pay from district funds such portion of the cost of the supplemental water as will encourage the purchase and use of the supplemental water in lieu of extracting groundwater, so long as persons or property within the area are directly or indirectly benefitted by the resulting replenishment.

Article 2. Investigations and Reports; Groundwater Management Programs and Reports

16220. The groundwater management district may from time to time investigate and prepare a report on groundwater conditions and supplies in the groundwater management area. The investigation and report shall include all information and data required to implement the powers contained in this part.

16221. The groundwater management district's data collection program shall conform to the minimum standards recommended by the department pursuant to Section 15131 of Part I of this division. The groundwater management district shall transmit to the department for inclusion in a statewide groundwater data storage and retrieval system a copy of any investigations, reports, or other data the department requests.

16225. The groundwater management district shall prepare a report on groundwater supplies and conditions in the groundwater management area, including groundwater management objectives and a plan of implementation to achieve those objectives, to be transmitted to the board as a groundwater management program as required by Chapter 7 (commencing with Section 15400) of Part I of this division.

16226. At least every two years, the groundwater management district shall prepare and transmit a report to the board detailing its groundwater management actions for the preceding two years and analyzing and evaluating groundwater management performance in terms of the program management objectives and implementation plan, as required by Section 15510 of Part I of this division.

Article 3. Registration of Extraction Facilities; Groundwater Extraction Statements

16240. The groundwater management district may require extraction facilities located within the groundwater management area to be registered with the groundwater management district and, if required by the board of directors, measured with a

water-measuring device installed by the groundwater management district or at its option by the extraction facility operator. The groundwater management district may also require any new extraction facility which is constructed, existing extraction facility which is deepened, or abandoned extraction facility which is reactivated to be registered with the groundwater management district within 30 days of completion, deepening, or reactivation and, if required by the board of directors, measured with a water-measuring device.

The board of directors may exclude operators who extract a minimum of groundwater from the requirements of this section. The board of directors shall set the minimum amount. The board of directors may also exclude from the requirements of this section operators who report under Section 4999-5008 of this code, or under any duplicative reporting requirements of any local entity within the groundwater management area.

In addition to other information which the groundwater management district may require, the district shall require for each registered extraction facility information as to the operator of each extraction facility, the owner of the land upon which each extraction facility is located, and a general description and location of each water extraction facility.

It shall be unlawful to extract groundwater from any extraction facility required to be registered unless the extraction facility has been registered with the groundwater management district and, if required, has a water-measuring device affixed. Failure to register any extraction facility, as required, shall be

subject to a civil penalty not to exceed one thousand dollars ($1,000).

16245. The groundwater management district may, after notice and a hearing and based upon the findings and determinations from the hearing, require the operator of each extraction facility in the groundwater management area, until the extraction facility has been permanently abandoned, to file with the groundwater management district, by January 31 and by July 31 of each year, a statement setting forth total extraction in acre-feet of water for the preceding six-month period (excluding the month in which the statement is due), a general description or number locating each extraction facility, and the method of measuring or computing groundwater extraction. The statement shall be verified by a written declaration that it is made under the penalties of perjury. The operator of an extraction facility which has been permanently abandoned shall give written notice of the abandonment to the groundwater management district.

The board of directors may exclude operators who extract a minimum amount of groundwater from the requirements of this section. The board of directors shall set the minimum amount. The board of directors may also exclude from the requirements of this section operators who report under Section 4999-5008 of this code, or under duplicative reporting requirements of any local entity within the groundwater management area.

When a water-measuring device is permanently attached to an extraction facility, the record of extraction as disclosed by the water-measuring device shall be presumed to be accurate and

shall be used as the basis for computing the water extraction of the extraction facility in completing the groundwater extraction statement unless, after investigation by the groundwater management district, it is determined that the water-measuring device is not measuring accurately. If the groundwater management district has probable cause to believe that the extraction of groundwater from any extraction facility is in excess of the amount reported in groundwater extraction statements, or if no statements are filed covering an extraction facility, the groundwater management district may investigate the extraction of water from each such extraction facility.

When a water-measuring device is not permanently attached to an extraction facility, the board of directors may establish reasonable methods to be used in computing the amount of water extracted by extraction facilities.

16246. Any person who fails to file a groundwater extraction statement, if required, or any person who injures, alters, removes, resets, adjusts, manipulates, obstructs or in any manner interferes or tampers with, or procures, or causes, or directs any person to injure, alter, remove, reset, adjust, manipulate, obstruct or in any manner interfere or tamper with any water-measuring device affixed to any facility as required by this part so as to cause the water-measuring device improperly or inaccurately to measure and record water extraction, or any person who with intent to evade any provision or requirement of this part files with the groundwater management district any false or

fraudulent groundwater extraction statement shall be subject to a civil penalty not to exceed one thousand dollars ($1,000).

Article 4. Groundwater Extraction Ordinances

16260. A groundwater management district may, by ordinance adopted by the board of directors after notice and hearing, adopt and enforce a program to regulate groundwater extraction to respond to conditions of long-term overdraft, subsidence, water quality and other significant environmental degradation, well interference, or the threat of any of the above.

16261. Upon the conclusion of the hearing and upon the basis of the hearing record, the board of directors may adopt a groundwater extraction program by ordinance if there is substantial evidence tending to show that regulation in the form, manner, and degree and for the period proposed is necessary to respond to conditions of long-term overdraft, subsidence, water quality and other significant environmental degradation, well interference, or the threat of any of the above.

A groundwater extraction ordinance may, for example: Require a license to use all existing groundwater extraction facilities; require a license to use all new groundwater extraction facilities; impose spacing requirements on new or reactivated extraction facilities; control or suspend groundwater extraction at designated points; or require a license to export groundwater from the groundwater management area.

16262. Any ordinance adopted pursuant to this article is effective upon adoption. Within ten days after its adoption,

the ordinance shall be published pursuant to Section 6061 of the Government Code. From and after the publication, violation of a requirement of a program of regulation adopted pursuant to this article shall be subject to a civil penalty of not to exceed one thousand dollars ($1,000).

Article 5. Groundwater Storage Agreements

16300. The groundwater management district has the authority to control groundwater storage rights within the groundwater management area, and to enter into groundwater storage agreements, subject to the provisions and limitations of Part III (commencing with Section 16500) of this division.

CHAPTER 5. FINANCES

Article 1. Groundwater Extraction Charges

16400. Groundwater extraction charges levied pursuant to this article are declared to be in furtherance of groundwater management district activities to manage groundwater resources in the groundwater management area which are necessary for the public health, welfare, and safety of the people of the State. Groundwater extraction charges are authorized to be levied for the benefit of all who rely directly or indirectly upon the groundwater resources of the area. Groundwater extraction charges are authorized to be levied upon the extraction of groundwater from all groundwater extraction facilities within the groundwater management area, except the extraction of water stored pursuant to a groundwater storage agreement or other storage commenced before the designation of a groundwater management authority for the

area, and except upon the use of supplemental water as an alternate source in lieu of groundwater, pursuant to Section 16200(13)(o).

16401. Groundwater extraction charges may be levied for the purpose of purchasing water to replenish the groundwater supply in the groundwater management area. Groundwater extraction charges may also be levied for the purpose of paying the costs of initiating, carrying on, and completing any of the powers, projects, and purposes for which the groundwater management district is organized.

Groundwater extraction charges levied for the purpose of purchasing water to replenish the groundwater supply in the groundwater management area shall be levied only within a zone or zones of the groundwater management district which will benefit from the recharge of groundwater basin supplies or the distribution of imported water in such zone or zones. Such zones shall be known as zones of benefit.

16402. Before the levy of groundwater extraction charges, the board of directors shall, after notice and hearing, find and determine on the basis of the hearing record and any investigations or reports prepared pursuant to Article 2 (commencing with Section 16220) of this chapter, the amount of water which is required and can be purchased for the replenishment of groundwater supplies in the area for the ensuing water year and the sum of money necessary for that purpose, and the activities required to prepare or implement the groundwater management program for the area and to initiate, carry on, or complete any of

the other powers, projects, and purposes for which the groundwater management district is organized and the sum of money necessary for those activities.

The board of directors shall determine the need and desirability of levying a groundwater extraction charge for the purpose of purchasing water to replenish the groundwater supply in any zone or zones of benefit, or for the purpose of paying the costs of initiating, carrying on, and completing any of the powers, projects, and purposes for which the groundwater management district is organized.

16403. The board of directors of a groundwater management district may establish zones of benefit within the groundwater management district. Resolutions shall describe the boundaries of the zones of benefit.

The board of directors may amend zone of benefit boundaries by annexing property to or by withdrawing property from a zone, or may divide a zone into two or more zones. Resolutions shall describe the boundaries of the amended or divided zones.

16404. The groundwater extraction charge rate shall be uniform for groundwater extraction within each zone of benefit in the groundwater management area.

16405. Groundwater extraction charges shall be calculated on the basis of groundwater extraction statements required to be filed pursuant to Article 3 (commencing with Section 16240) of Chapter 4 of this part.

16406. The board of directors may exclude operators who extract a minimum amount of groundwater from the requirements of

this article. The board of directors shall set the minimum amount.

16407. Where rights have been finally determined in an action brought to adjudicate substantially all of the rights in a groundwater basin or area and such rights have been limited to the available supply thereof, or where pursuant to any such judgment an agency other than the groundwater management district has the responsibility for providing replenishment for such groundwater extractions, whether the rights have been determined individually or in the aggregate, extraction of groundwater pursuant to such rights shall be exempt from any extraction charges or portion thereof levied or used for the purpose of purchasing or otherwise providing replenishment water, or for the acquisition, construction, operation or maintenance of property or facilities to provide groundwater replenishment.

16408. The total of the groundwater extraction charges levied in any year shall not exceed an amount of money found to be necessary to purchase water to replenish the groundwater supply in the groundwater management area, plus an amount of money found to be necessary to pay the costs of initiating, carrying on, and completing any of the powers, projects, and purposes for which the groundwater management district is organized.

16409. If any operator of an extraction facility fails to pay the groundwater extraction charge when due, the groundwater management district shall charge interest at the rate of one percent each month on the delinquent amount of the groundwater extraction charge.

16410. The superior court of a county in which the groundwater management district lies may issue a temporary restraining order prohibiting the operator from operating any extraction facility upon the filing by the groundwater management district with the court of a petition setting forth that the extraction facility has not been registered with the groundwater management district, if required, or that the operator is delinquent in the payment of a groundwater extraction charge. The temporary restraining order shall be returnable to the court on or before ten days after its issuance.

The court may issue and grant an injunction restraining and prohibiting the operator from operating any extraction facility when it is established at the hearing that the operator has failed to register the extraction facility with the groundwater management district, if required, or that the operator is delinquent in payment of groundwater extraction charges.

The right to proceed for injunctive relief is an additional right to those which may be provided elsewhere in this part or otherwise allowed by law. The groundwater management district shall not be required to provide an undertaking or bond as a condition to granting injunctive relief.

Article 2. Basin Equity Assessments

[Comment: The powers contained in this part, including the financing provisions, are available for use but are not required to be used. For example, basin equity assessments have only been used where:

1. Demand for water from the basin is greater than the available groundwater supply under balanced conditions for the year, so that extraction must be limited to equal the supply of groundwater available in a given year; and

2. Supplemental sources are available and cost more than groundwater; and

3. Greater groundwater production is allowable from some parts of the basin than from other parts.]

16420. Basin equity assessments and extraction requirements and limitations levied upon and applied to operators within the groundwater management area are declared to be in furtherance of groundwater management district activities to manage surface water and groundwater resources within the groundwater management area which are necessary for the public health, welfare and safety of the people of the State. Basin equity assessments and extraction requirements and limitations are authorized to be levied for the benefit of all who rely directly or indirectly upon the groundwater resources of the area. Basin equity assessments and extraction requirements and limitations are authorized to be levied upon and applied to all extraction with the groundwater management area, except the extraction of water stored pursuant to a groundwater storage agreement or other storage commenced before the designation of a groundwater management authority for the area, and except the use of supplemental water as an alternate source in lieu of groundwater, pursuant to Section 16200(13)(o).

The proceeds of the basin equity assessments levied and collected shall be used to equalize the cost of water to all operators within the groundwater management area not excluded from

the levy of the basin equity assessment, exclusive of any other charges levied by the groundwater management district, and to acquire water to replenish the groundwater supplies of the groundwater management district.

16425. The board of directors shall give notice and hold a public hearing each year to determine the need to levy a basin equity assessment and to establish extraction requirements and limitations within the groundwater management area for the ensuing water year.

16426. Subsequent to the hearing, the board of directors may find and determine for the ensuing water year:

a. The basin extraction percentage, which is the ratio that all groundwater extracted within the groundwater management area bears to all water to be obtained by operators within the groundwater management area from supplemental water as well as from groundwater within the area for the ensuing water year;

b. The basin equity assessment to be levied against all operators in an amount per acre-foot of groundwater extracted for all purposes;

c. Extraction requirements or limitations to be applied to operators within the groundwater management area during the ensuing water year. Such requirements and limitations shall be on the amount of groundwater extracted, expressed as a percentage of the total of groundwater extracted within the groundwater management area and water obtained from supplemental water sources.

During the ensuing water year, upon notice and hearing, the basin extraction percentage, the basin equity assessment, or any extraction requirement or limitation may be modified by the groundwater management district. Any modifications shall be effective on the date established by the board of directors and the groundwater management district shall give notice of the modification 10 days prior to the effective date thereof.

16427. The board of directors may exclude operators who extract a minimum amount of groundwater from the requirements of this section. The board of directors shall set the minimum amount.

16428. The groundwater management district shall, prior to the beginning of each water year, give notice to each operator within the groundwater management area which shall state:

a. The amount of the basin equity assessment per acre-foot of water extracted;

b. The basin extraction percentage; and

c. The extraction requirement or limitation upon the operator.

16429. Each operator within the groundwater management area not excluded from the levy of the basin equity assessment and the extraction requirements and limitations shall file with the groundwater management district on or before the end of each water year, a basin equity assessment report in the form prescribed by the groundwater management district setting forth the total amounts of groundwater extracted within the groundwater management

area and water obtained from supplemental sources during the preceding water year by the operator. The statement shall be verified by a written declaration under penalty of perjury.

16430. In the event that the operator has been required by the groundwater management district to extract or has in fact extracted more groundwater from within the groundwater management area than the equivalent of the basin extraction percentage, the operator shall pay to the groundwater management district, on or before the end of the water year, an amount determined by the number of acre-feet of groundwater which the operator extracted from within the groundwater management area in excess of the acre-foot equivalent of the basin extraction percentage multiplied by the basin equity assessment rate.

In the event that the operator has been required by the groundwater management district to extract or has in fact extracted less groundwater from within the groundwater management area than the equivalent of the basin extraction percentage, the operator, on or before the end of the calendar year, shall be paid by the groundwater management district an amount determined by the number of acre-feet by which the groundwater extraction of the operator is less than the acre-foot equivalent of the basin extraction percentage multiplied by the applicable basin equity assessment rate.

16431. If any operator shall fail to pay the basin equity assessment when due, the groundwater management district shall charge interest at the rate of one percent each month on the delinquent amount. If any operator within the groundwater manage-

ment area fails to file a basin equity assessment report on or before the end of the water year, the groundwater management district shall, in addition to charging interest, assess a penalty charge against the operator in the amount of 10 percent of the amount found by the groundwater management district to be due.

16432. The groundwater management district may, from time to time, require other necessary reports from operators in the application of the basin equity assessment procedures provided in this article.

Upon good cause shown an amendment to any report required under this article may be filed or a correction of any report may be made within six months after the report is filed with the groundwater management district.

Article 3. Taxes

[Comment: Although the effect of the Jarvis-Gann Initiative on water district taxing powers has not been finally determined, this article has been included to ensure the groundwater management districts have a full range of financing possibilities.]

16440. To the extent that the revenues resulting from water charges authorized by Article 1 (commencing with Section 16400) of this chapter and from management charges authorized by Article 5 (commencing with Section 16470) of this chapter are inadequate to meet the obligations and expenses therein set out, the board of directors may cause a tax to be levied, as herein provided, sufficient to pay the expenses and charges of the groundwater management district.

16441. The board of directors shall determine the amounts necessary to be raised by taxation during the water year and shall fix the rate or rates of tax to be levied which will raise the amounts of money required by the groundwater management district and within a reasonable time previous to the time when the board of supervisors is required by law to fix its tax rate, the board shall certify to the board of supervisors a statement in writing containing an estimate of the minimum amount of money required to be raised by taxation during the water year for all purposes of the groundwater management district.

16442. Where the groundwater management district includes land within more than one county, the groundwater management distict may direct the board of supervisors of each county to levy the necessary tax on landowners within those counties.

16443. The board of directors shall direct that at the time and in the manner required by law for the levying of taxes for county purposes, such board of supervisors shall levy, in addition to such other tax as may be levied by such board of supervisors, at the rate or rates so fixed and determined by the board of directors, a tax upon the real property and improvements thereon, but not on personal property within the groundwater management district, and it is made the duty of the officer or body having authority to levy tax within each county to levy the tax so required.

16444. It shall be the duty of all county officials charged with the duty of collecting taxes to collect the tax

provided for herein in time, form and manner as county taxes are collected, and when collected pay the same to the groundwater management district.

16445. All taxes provided for herein shall be a lien on the real property and improvements upon which the tax is levied, and their collection may be enforced by the same means as provided for in the enforcement of liens for state and county taxes.

Article 4. Revenue Bonds

16460. Subject to the limitations of this article, revenue bonds, including refunding revenue bonds, may be issued by a groundwater management district under the Revenue Bond Law of 1941, Chapter 6 (commencing with Section 54300), Part 1, Division 1, Title 5 of the Government Code.

16461. For the purpose of this chapter, the term "enterprise", as used in the Revenue Bond Law of 1941, shall be limited to and shall include only those works or property authorized to be acquired, constructed, improved, or financed by a groundwater management district pursuant to this division or any other applicable provision of law.

16462. All revenue bonds issued by a groundwater management district under this chapter may be certified as legal investments pursuant to Division 10 (commencing with Section 20000) of this code in the manner and to the extent provided in Sections 54433 and 54434 of the Government Code.

Article 5. Management Charges

16470. Management charges may be imposed on landowners within the groundwater management district for benefits received

by landowners from improved groundwater management and planning, for the purpose of paying the costs of initiating, carrying on, and completing any of the powers, projects, and purposes for which the groundwater management district is organized.

16471. Before the levy of management charges, the board of directors shall, after notice and hearing, find and determine the portions of the groundwater management area to be benefitted by management and planning activities, the need for management charges for the purpose of paying the costs of these activities, and the amount of the charges to be levied.

16472. Management charges shall not exceed $10 per acre per year for each acre of land, or $10 per year for each parcel of land less than an acre within the groundwater management area. The board of directors may exclude parts of the groundwater management area or may establish schedules varying the management charge according to the likelihood that the land shall benefit from improved groundwater management.

16473. A seven percent penalty on any management charge shall accrue where any such charge remains unpaid on the first day of the month before the month in which the board of supervisors of the county in which the groundwater management district or any part thereof is located is required by law to levy the amount of taxes required for county purposes.

16474. The amount of the unpaid management charge plus the penalty shall be added to the tax levied annually upon the land subject to the management charge. The amount of the unpaid

management charge plus the penalty shall constitute a lien on that land as of the same time and in the same manner as does the tax lien securing such annual taxes.

16475. At least 15 days before the first day of the month in which the board of supervisors of each affected county is required by law to levy the amount of taxes required for county purposes, the board of directors shall furnish in writing to the board of supervisors and the county auditor of each affected county a description of each parcel of land within the groundwater management district upon which a management charge remains unpaid, together with the amount of the unpaid management charge plus penalty on each parcel of land.

Article 6. Short-Term Borrowing Power

16480. A groundwater management district may borrow money and incur indebtedness as provided in this article by action of the board of directors and without the necessity of calling and holding an election in the groundwater management district.

16481. Indebtedness may be incurred pursuant to this article for any purpose for which the groundwater management district is authorized to expend funds.

16482. Indebtedness incurred under this article shall be evidenced by short-term notes payable at stated times fixed by the groundwater management district. The maturity of short-term notes shall be not later than five years from the date of issuance. Short-term notes shall bear interest at a rate not exceeding eight percent per annum payable annually or semi-annually. Short-term notes shall be general obligations of the groundwater management

district payable from revenues and taxes levied for purposes of the groundwater management district other than the payment of principal and interest on any bonded debt of the groundwater management district.

16483. Short-term notes shall not be issued pursuant to this article in any fiscal year in an amount which, when added to the interest thereon, exceeds 85 percent of the estimated amount of the uncollected revenues and taxes of the groundwater management district which will be available in the fiscal year for payment of short-term notes and the interest thereon.

PART III. CONJUNCTIVE USE OF GROUNDWATER AND SURFACE WATER

CHAPTER 1. POLICY

16500. It is the policy of the Legislature to encourage the conjunctive use of groundwater and surface water resources, including the storage of water in groundwater basins for later extraction for beneficial use and the spreading of water to replenish groundwater supplies as part of management of the water supplies of groundwater management areas.

CHAPTER 2. IMPLEMENTATION OF CONJUNCTIVE USE

Article 1. Right to Use Groundwater Basin Storage Space

16501. The groundwater management authority has the authority to control all groundwater storage rights within the groundwater management area as provided by this part. The authority shall have the power to determine the amount of groundwater basin storage space available and to allocate groundwater basin storage space within the area as provided by this part.

16502. The groundwater management authority or other persons pursuant to an agreement with the groundwater management authority shall have the right to store water in a groundwater basin of the groundwater management area as provided in this part.

16503. In addition to spreading or injecting water into an underground basin or delivering water to extractors in lieu of extracting groundwater for the purpope of replenishing the groundwater supplies, water may be stored in a groundwater basin:

(a) Directly by artificial means, such as by spreading water in stream channels or other spreading areas or injecting water through the use of injection wells.

(b) By delivering water to extractors in lieu of their extracting groundwater.

[Comment: Storage of water in a groundwater basin can occur in a number of ways:

1. By spreading or otherwise using supplemental water for direct replenishment of a basin.

2. By spreading or otherwise using native water for direct replenishment of a basin.

3. By return flow to a groundwater basin attributable to supplemental water reaching the ground in the course of use, as a result of over-irrigation, for example.

4. By return flow to a groundwater basin attributable to native water reaching the ground in the course of use.

5. By delivery of supplemental water to extractors in lieu of their extracting groundwater.

6. By delivery of native water to extractors in lieu of their extracting groundwater.

The first and second are included in Section 16501 (a), and the fifth and sixth are included in Section 16501 (b), as storage for which a groundwater storage agreement must be made. If, in the second and sixth storage situations, some or all of the water that replenishes a basin would have replenished the basin naturally, questions on the right to extract that water may be raised by groundwater extractors or diverters in the area which may or may not be accounted for in a groundwater storage agreement.

The third method, but not the fourth, is recognized in Los Angeles v. San Fernando ((1975) 14 Cal.3d 199, 261). The importer of supplemental water has a priority right to recapture return flows from that water since those return flows add to the groundwater supply. This third type of recapture right would be recognized in an adjudication of rights in a groundwater basin.

Two issues are left to separate agreement. One is the issue of how replenishment with treated wastewater will be dealt with. The second is which agency in a chain of agencies involved in importing supplemental water used for replenishment would be the importer for purposes of this part.]

16504. No compensation shall be paid for use of groundwater basin storage space.

[Comment: Notwithstanding this section, Section 16513 provides that a groundwater storage agreement may provide for the reasonable sharing of administrative expenses of the groundwater management authority attributable to administration of the storage operations under the agreement.]

Article 2. Groundwater Storage Agreements

16510. All groundwater basin storage by a person, other than the groundwater management authority in the area, shall be conducted pursuant to a groundwater storage agreement between that person and the groundwater management authority as provided in Section 16512. Nothing in this part shall impair any groundwater basin storage program which commenced before the effective date of this Act.

16511. In allocating the use of groundwater basin storage space, the groundwater management authority shall give priority to the reasonable water supply needs of the area overlying the basin and the area historically supplied by the basin's water supply and to replenishment of the basin pursuant to a management program. Any remaining groundwater basin storage space shall be available for the use and benefit of other users outside of the groundwater management area.

16512. Groundwater storage agreements shall include, but not be limited to:

(1) The quantities and term of groundwater storage right.

(2) A statement of the relation of the right to other groundwater storage rights.

(3) Delivery rates, schedules, and procedures for storing and extracting water.

(4) Terms and conditions as may be reasonably necessary to protect the water supply of the groundwater management area and to prevent injury to persons extracting water from the area, such as limitations on the quality of the stored water so as not to degrade unreasonably the quality of the groundwater in the area.

(5) The procedures for calculating losses in stored water and any other losses or special costs, damages, or burdens to the extent caused by the groundwater storage, to the extent they are compensable.

16513. A groundwater storage agreement may provide for the reasonable sharing of administrative expenses of the groundwater management authority in connection with groundwater storage operations in the groundwater management area conducted pursuant to the agreement.

16514. If, upon application by any person to enter into a groundwater storage agreement for the benefit of users inside or outside of the groundwater management area, the groundwater management authority fails to enter into a groundwater storage agreement within six months of receipt of the application, the groundwater management authority's inaction shall be subject to judicial review pursuant to Section 1094.5 of the Code of Civil

Procedure. The court shall have the power to order the groundwater management authority to enter into a fair and equitable groundwater storage agreement, subject to appropriate terms and conditions, in accordance with the provisions of this part, unless it finds that the authority's inaction is based on substantial evidence that inadequate storage space is available to meet the reasonable water needs given priority pursuant to Section 16511, or that the agreement would unreasonably impair water supplies of the groundwater management area.

Article 3. Extraction of Stored Water

16530. The amount of water stored in a groundwater basin shall be subject to recapture by the person who stored the water or pursuant to an agreement with the person who stored the water. It shall be presumed that the person who stores water in a groundwater basin intends to recapture that water from the basin.

16531. Losses of native water caused by storage shall be allocated to the stored water to the extent the water causes the loss, unless otherwise provided in an applicable groundwater storage agreement. The determination of native water losses caused by storage shall be subject to judicial review pursuant to Section 1094.5 of the Code of Civil Procedure.

16532. The right to recapture stored water shall be exercised so as to avoid unreasonable injury to other groundwater extractors.

Article 4. Right to Replenish and Manage Local Groundwater Supplies

16540. Use of a groundwater basin for the purpose of replenishing and managing local groundwater supplies shall have priority over the use of a basin for storage of water. The person placing the replenishment water in the basin shall have the authority to manage the use of that water.

PART IV. GROUNDWATER RIGHTS ADJUDICATION

CHAPTER 1. DETERMINATION OF RIGHTS TO GROUNDWATER

Article 1. Basin or Area With Long-Term Overdraft

16700. (a) In a groundwater rights adjudication, where there is a long-term overdraft, rights to the use of the available supply of groundwater shall be allocated primarily on the basis of recent use. Extraction of groundwater based on a pueblo right and extraction to recapture imported water stored in a groundwater basin directly or indirectly shall have priority over all other rights. No right shall be reserved for any prospective overlying use unless the prospective overlying user has, prior to the filing of the complaint in the adjudication, obtained a declaratory judgment that establishes that right.

(b) The court shall determine the period of recent use to be used.

(c) The court may consider factors in addition to recent use to avoid placing inequitable or undue burdens on any party, including but not necessarily limited to:

(1) Cessation of or reduction in groundwater extraction for which filings are made with the board pursuant to Sections 1005.1 through 1005.4 of this code.

(2) Cessation of or reduction in groundwater extraction required by a groundwater management authority pursuant to this division.

(3) Extreme hardship or other equitable factors.

16701. (a) The court may enjoin all extractions in excess of the available supply, may require all extractions in excess of the available supply to be reduced over a period of time to the available supply, or may allow the groundwater to be mined for a period of time with eventual reduction to available supply.

(b) All groundwater right holders, except holders of a pueblo right or a right to recapture imported water stored in a groundwater basin directly or indirectly, shall share proportionately in any aggregate reduction in extractions, subject to Section 16700(c). Where a public use of groundwater has intervened, the public use shall share proportionately in the burdens of any such aggregate reduction, and the public user may provide for continuing its rate of use only by purchase or condemnation.

16702. The court may impose a physical solution on groundwater right holders in order to:

(1) Avoid waste of water or damage to the supply without unreasonably or adversely affecting the rights of any party; or

(2) Avoid loss of substantial investment or the necessity of substantial expenditure, without imposing a significant burden on any party, provided that any use of supplemental water must comply with the service area integrity requirements that attach to those supplies.

Article 2. Basin or Area Without Long-Term Overdraft

16750. (a) In the determination of rights to groundwater in a groundwater rights adjudication of a basin or area which is not in a condition of long-term overdraft, rights to groundwater shall be allocated first for extraction of groundwater based on a pueblo right and for extraction to recapture imported water stored in a groundwater basin directly or indirectly, then for extraction for overlying uses on a correlative basis, and then for extraction for appropriative uses on a first in time, first in right basis, subject to any prescription which may have occurred.

(b) A declaratory judgment may be obtained to establish prospective overlying use.

(c) Determination of the priorities in time among appropriative uses shall be made by comparing the total amounts of groundwater each appropriator extracts for appropriative uses for each calendar year.

CHAPTER 2. GROUNDWATER RIGHTS ADJUDICATION RELATED TO GROUNDWATER PROGRAM AND PERFORMANCE ENFORCEMENT

16800. In a groundwater rights adjudication initiated pursuant to Section 15430 or 15530 of Part I of this division, the area encompassed by the groundwater rights adjudication shall be the designated groundwater management area. The parties included in the groundwater rights adjudication shall be the persons and local entities within the groundwater management

area who extract or claim a right to extract groundwater, except, at the discretion of the plaintiff, extractors taking only minimal amounts of water.

CHAPTER 3. RULES OF PROCEDURE FOR GROUNDWATER ADJUDICATIONS

Article 1. In General

16900. Except as provided in this chapter, all proceedings in a groundwater adjudication shall be in accordance with the rules contained in the Code of Civil Procedure.

Article 2. Selection of Judge

16905. In a groundwater adjudication, a judge of any superior court of a county within which a portion of the groundwater adjudication area lies shall be disqualified to sit or act. The chairperson of the Judicial Council shall assign a judge to hear the action. The judge assigned shall preside in all proceedings, including all pre-trial matters related to the adjudication.

16906. Section 170.6 of the Code of Civil Procedure shall not apply in groundwater adjudications.

[Comment: Section 170.6 of the Code of Civil Procedure establishes the procedure for peremptory challenge of a judge.]

Article 3. Change of Venue

16910. Section 394 of the Code of Civil Procedure shall not apply in groundwater adjudications.

[Comment: Section 394 of the Code of Civil Procedure provides mandatory change of venue in cases involving a county, city, or local agency.]

Article 4. Reference to Board

16915. A petition to the court to refer a groundwater adjudication to the board for investigation and report of physical facts, pursuant to Section 2001 of this code, shall not be submitted later than six months after the date of the notice issued pursuant to Section 16922.

Article 5. Service of Complaint and Proof of Claim

16920. (a) The plaintiff in a groundwater adjudication may request that any investor-owned or municipal utility providing electrical power in the adjudication area supply the names and addresses of all customers within the area who are supplied power to operate well pumps as reflected in the utility records.

(b) A utility which receives a request as set forth above shall be obligated to furnish the information specified. The plaintiff shall be liable for the reasonable cost incurred by the utility in complying with the request. The utility shall incur no civil liability by reason of its compliance with this section.

16921. Subject to the provisions of Section 16938, the plaintiff shall include as named parties in the action all persons or entities known, or who with reasonable diligence can be determined, to own or operate a well within the adjudication area. Such an action shall not be subject to dismissal for failure to join indispensible parties. All named parties shall be served with summons and complaint in accordance with the Code of Civil Procedure.

16922. The plaintiff shall, simultaneously with serving the complaint upon known pumpers, prepare and issue a notice setting forth the following:

(a) The fact that a complaint has been filed and a description of the groundwater adjudication area contained therein;

(b) That all claimants of present or future rights to use groundwater are required to file a proof of claim with the court and with the plaintiff within six months from the date of the notice unless they have been served with a complaint in the pending adjudication, in which case they shall be required to appear as required by law;

(c) The date prior to which the claims must be made;

(d) The means by which access to materials relating to groundwater hydrology may be obtained, pursuant to Section 16924;

(e) The fact that filing a claim shall be deemed to be an answer to the complaint;

(f) The means by which a copy of the complaint may be obtained, pursuant to Section 16925;

(g) If the plaintiff has elected pursuant to Section 16938 that pumpers extracting five acre-feet per year or less shall not be deemed indispensable parties, a statement that only those pumpers who wish to protect a right to extract more than five acre-feet annually shall be required to file a claim.

16923. The notice shall be published at least once a week for 12 consecutive weeks, commencing with the date of notice, in all newspapers of general circulation published in each county in which any part of the groundwater adjudication area is situated. The notice shall be printed in each newspaper in the same size type as used by that paper for feature articles.

16924. The plaintiff shall make available to persons or entities intending to file a claim all materials developed or obtained by plaintiff relating to the groundwater geohydrology of the adjudication area stated in the complaint. The plaintiff may choose whether to send copies of these materials to interested persons or entities or to make the material available for inspection and copying during regular business hours at the business address of the plaintiff or at the office of the plaintiff's attorney.

16925. The plaintiff shall, upon request, send to persons or entities intending to file a claim a copy of the complaint. In such case, the claimant may elect, in lieu of filing a proof of claim, to appear in the action in the same manner as any named party.

16926. The proof of claim filed by each claimant to groundwater within the adjudication area shall include the following information to the extent known:

(a) The name and post office address of the claimant and of the claimant's attorney, if the claimant is represented by counsel.

(b) The quantity of groundwater extracted and the method of measurement used by the claimant and of the claimant's predecessor in interest in each preceding year; provided, that if the period of such taking exceeds five years, the claimant is not required to state such quantities for any period greater than the preceding five years. These quantities shall not be determinative of the award of rights in the final judgment of the adjudication.

(c) The location (sufficient for identification) of each source through which groundwater has been extracted, and if any person or entity other than the claimant filing the proof claims any interest in one of these sources or the right to extract water therefrom, the name or names, so far as known, of such other person or entity.

(d) A general description of the purpose to which the water is put and the area in which the water is used.

(e) Any claims for increased or future use of water.

(f) Any other facts which tend to prove the claimant's right to water.

16927. Any person or entity within the groundwater adjudication area who has not appeared if served with a complaint in a groundwater adjudication or who does not submit a proof of claim to the court and to the plaintiff by the required date shall be foreclosed from further assertion of rights to groundwater in that area. Exceptions shall be made only upon a showing of lack of actual notice or extreme hardship, accompanied by a proof of claim, not more than six months after the original

deadline. If the plaintiff has elected, pursuant to Section 16938, that pumpers who extract five acre-feet per year or less be deemed not to be indispensable parties, pumpers who do not file may continue to extract up to five acre-feet per year.

Article 6. Small Users

16938. Upon plaintiff's election, persons or entities who extract not more than five acre-feet of water annually shall not be considered indispensable parties. Pumpers who are not indispensable who wish to protect a right to extract more than five acre-feet annually may intervene in the groundwater adjudication.

Article 7. Preliminary Injunction

16940. Upon a showing of long-term overdraft, the court in a groundwater adjudication may issue a preliminary injunction prohibiting increased pumping. Bulletins or other reports of department studies indicating that a long-term overdraft exists shall be admissible and shall constitute prima facie evidence of the overdraft. All other relevant evidence shall also be admissible. The court shall determine the terms of the preliminary injunction. Where appropriate, the court may permit each pumper annually to extract groundwater in an amount equivalent to the maximum extraction by that pumper during any one year in the previous five year period. The terms of the preliminary injunction shall not be determinative of the award of rights in the final judgment of the adjudication. No bonds shall be required for the issuance of a preliminary injunction. Nothing herein contained shall impair or limit the broad equitable powers of the court.

Article 8. Lis Pendens

16945. The court shall order a lis pendens, giving notice of the initiation of groundwater adjudication proceedings, to be recorded in the office of the recorder of the county or counties in which the groundwater basin, groundwater management area, or other area is situated. The lis pendens may describe the area included within the action by means of a perimeter description or by reference to sections, townships and ranges. The lis pendens shall include the names of all parties in the action. It shall also state that all landowners claiming present or future rights to extract groundwater, and their successors in interest, will be bound by the adjudication. If small users have been exempted pursuant to Section 16938, this fact shall be noted. Where appropriate, the notice shall be recorded after a preliminary injunction on groundwater extraction as defined in Section 16940 has been imposed, and the notice shall include the terms of the injunction. If, during the course of the litigation, the boundaries of the adjudication area are changed, the lis pendens shall be recorded at that time for the property in the area included, and expunged for the area excluded. Additional parties named in the action shall also be included. Except as provided above, a lis pendens giving notice of a groundwater adjudication shall not be expunged until final judgment in the adjudication is rendered.

Article 9. Stipulation to Judgment

16950. In recognition of the complexity of the issues to be litigated in a groundwater adjudication and the costs of

litigation to all parties, every effort shall be made to encourage a settlement by the parties.

16951. Defendants who have joined in a stipulation to judgment with the plaintiff shall not be required to file an answer to the complaint in order to protect their right to water as set forth in the proposed stipulated judgment. A withdrawal from the stipulation after service of the complaint, if not accompanied by an answer to the complaint, shall constitute a default. The rights of parties who have not joined in the stipulation shall be determined as they would be in the absence of any such stipulation, unless the court imposes a physical solution upon all parties.

16952. Each stipulation to judgment shall clearly set forth the conditions which shall be met before the stipulation is filed with the court. Parties who have joined the plaintiff in a stipulation which has been filed may not withdraw from that stipulation, except when the court finds there is good cause for withdrawal. A stipulation may be made and filed by a corporation or public agency without the necessity of appearing through counsel.

16953. Discovery materials, motions, and all other pleadings filed in the action which do not relate directly to the status of the stipulation need not be served upon stipulating parties. All such documents upon request shall be made available to stipulating parties for inspection and copying. Parties who wish to inspect or copy these materials may do so at

the business address of the plaintiff, or office of the plaintiff's designee or attorney, as specified by plaintiff.

Article 10. Discretionary Dismissal

16965. Section 583 of the Code of Civil Procedure shall apply in groundwater adjudications, except that all dismissals pursuant to 583 (b) shall be discretionary with the court. The court shall dismiss the action at the time specified or at any later time only when the court finds that delay is the result of willful failure to prosecute the action.

[Comment: Section 583(b) of the Code of Civil Procedure requires mandatory dismissal of an action which has not been brought to trial within five years of the date of filing.]

Article 11. Physical Solution

16970. The court shall have the power to impose a physical solution upon the parties in a groundwater adjudication.

Article 12. Judgment Binding on Successors

16975. The judgment in a groundwater adjudication shall be binding upon the parties to the action and all their successors in interest, including but not limited to heirs, executors, administrators, assigns, lessees and licensees and upon the agents and employees of all these persons, and upon all landowners or other persons claiming rights to extract groundwater from within the area of adjudication.

Article 13. Continuing Jurisdiction

16980. The court shall have continuing jurisdiction to modify or amend a final judgment in a groundwater adjudication to meet the demands of changed circumstances. Whenever

appropriate, the judge who heard the original action shall preside over subsequent actions or motions to modify or amend.

Article 14. Designees for the Receipt of Process

16985. (a) Every party to a groundwater adjudication shall, within 30 days after the time limit for an appeal from a final judgment has expired, nominate a designee for service of all pleadings under the continuing jurisdiction of the court. Such designee may be counsel for the party, or an officer or employee of a public agency designated by title only, or the party to the action, or other corporate or private person. The nomination must be filed with the court within this time, accompanied by the information as set forth in (b), (c), and (d) below.

(b) If a natural person is designated, such person must reside within the State. The designee's complete business or residence address shall be filed, as well as a statement by the designee of willingness to serve.

(c) If an entity other than a natural person is designated, it must have an office or offices within the State. The complete address of its office or offices where it is willing to be served with process, and the name of each person at each such office whom it authorizes to receive process, shall be provided. A statement by the designee of willingness to serve must also be filed.

(d) If a party nominates itself as designee, the information required in (b) and (c) above, as applicable, must

be provided to the court. No statement of willingness to serve is necessary.

16986. A party may change the identity of its designee at any time by submitting to the court a new nomination complete with the information required in Section 16985.

16987. A designee may file with the court a signed and acknowledged written statement of resignation. The authority of the designee to receive process for the party to the adjudication shall thereupon cease. The court shall notify the designating party of the resignation.

16988. If a natural person who is a designee dies, resigns, or no longer resides in the State, or if a corporate designee resigns, ceases to do business within the State, or no longer has offices within the State, the party to the adjudication shall nominate a successor forthwith. Section 286 of the Code of Civil Procedure shall not apply after a designee for service has been nominated pursuant to Section 16985 (a).

> [Comment: Section 286 of the Code of Civil Procedure provides that when an attorney dies, is suspended, or ceases to act, further proceedings will not be permitted until the adverse party requests by written notice that the party represented appoint a new attorney.]

16989. All motions or other pleadings may be served by mail upon the designees on file with the court, and such service shall fulfill all notice requirements.

FOOTNOTES TO CHAPTER V

1. Assembly Interim Committee on Water, California Legislature, Groundwater Problems in California 48 (Vol. 26, Assembly Interim Commmittee Reports No. 4, December 1962).

2. California Department of Water Resources, Bulletin No. 118, California's Ground Water 115, 121 (1975).

3. The State Water Project's California Aqueduct into the San Joaquin Valley is now complete. As future area of origin and Southern California service area demands increase, additional supplies will be needed to provide continuing contract supplies to the San Joaquin Valley. The Department of Water Resources proposes to meet these new water needs with new surface and groundwater storage facilities and a Delta transfer facility.

4. United States National Water Commission, Water Policies for the Future 243 (1973).

5. Cal. Water Code Sections 104, 105 (West 1971).

6. Cal. Water Code Sections 12922, 12922.1 (West 1971).

7. Unless otherwise indicated, all data summarized in the following material is taken from the following sources or from Department of Water Resources background computations for those sources: California Department of Water Resources, Bulletin No. 118, California's Ground Water (1975); Bulletin No. 160-74, The California Water Plan Outlook in 1974 (1974); and The 1976-1977 California Drought, A Review (1978).

8. The 24 percent for groundwater users covers only the naturally occurring groundwater which consists of average annual natural recharge of 5.2 million acre-feet and average annual overdraft of groundwater in storage of 2.2 million acre-feet. Actual groundwater use also includes 7.6 million acre-feet of deep percolation of applied water (mostly surface water) which is then pumped from the groundwater basin. This is considered as a reuse of applied water and is not included in net supply. Total groundwater extraction is thus (5.2 + 2.2 + 7.6) = 15.0 maf per year. The estimated average annual applied water demand at the 1972 level was 37.44 maf, and 15 maf is 40 percent of that figure.

9. California Department of Water Resources, Bulletin No. 3, The California Water Plan 206 (1957).

10. Pasadena v. Alhambra, 33 Cal. 2d 908, 207 P.2d 17 (1949).

11. Los Angeles v. San Fernando, 14 Cal.3d 199, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

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12. Pasadena v. Alhambra, 33 Cal.2d 908, 207 P.2d 17 (1949); Los Angeles v. San Fernando, 14 Cal.3d 199, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

13. Hardin, "The Tragedy of the Commons", Science, Vol. 162, No. 3859 (1968).

14. Id. at 1244.

15. The University of California Agricultural Issues Task Force, Agricultural Policy Challenges for California in the 1980's 9, 10, 16 (1978).

16. Cal. Water Code Section 40-1 et seq. (West 1968).

17. Upper San Gabriel Valley Municipal Water District v. City of Alhambra, Civil No. 924128, Cal. Super. Ct., Los Angeles County, January 4, 1973.

18. Relevant portions of the California Coastal Act are as follows: Cal. Pub. Res. Code Sections 30103, 30222, 30231, 30250, 30255, 30300, 30600 et seq. (West 1977).

19. Cal. Pub. Res. Code Sec. 30106 (West 1977).

20. California Coastal Commission Appeal Nos. 104-77, 114-77, 124-77, 125-77, 197-77, 375-77, 388-77, 399-77, 406-77 through 428-77, 481-77.

21. The information on well interference was obtained from the following sources: Interview with David Barber, Water Resources Control Board, June 13, 1978; interviews with Edwin Ritchie, Department of Water Resources, June 13 and 15, 1978; interview with Lyle Rose, Office of the County Counsel, Placer County, June 13, 1978; Water Resources Control Board Decision 1470; Ordinance No. 220 N.S., City of Grass Valley; Letter, undated, from the Town of Fairfax to the Department of Water Resources and response by the Department of Water Resources, dated June 3, 1977.

22. Material on Southern California was drawn from these sources: Krieger and Banks, "Groundwater Basin Management", 50 Cal. L. Rev. 56 (1960); L. Schelhouse, P. Zimmerman, J. Milliman, D. Shapiro and L. Weschler, The Market Structure of the Southern California Water Industry, prepared for Office of Water Resources Research, U.S. Department of the Interior, (1974); Cal. Water Code App. Sec. 35-1 et seq. (West 1968).

23. Material on Kern County was derived from these sources: S. Pyle and G. Ribble, Groundwater Recharge in Kern County, Kern County Water Agency, (1977); S. Pyle, "Groundwater Management in Kern County", in Eleventh Biennial Groundwater Conference 13 (1977); 2 Department of Water Resources, "Standard Provisions for Water Supply Contract", Bulletin 141, The California State Water Project Water Supply Contracts (1965); Cal. Water Code App. Sections 99-1 et seq. (West 1968 and West Supp. 1978).

24. Information regarding the Bakersfield-Tenneco West negotiations and the development of Tenneco property was obtained from the following sources: telephone interviews with Stuart Pyle, November 6, 1978; Edward Tiedemann, November 6, 1978; Paul Enns, November 7, 1978; William Balch, November 13, 1978, and December 18, 1978; Thomas Stetson, November 15, 1978 and December 18, 1978; Leeds, Hill, Jewett, Inc., Report on Establishment of Zones of Benefit, prepared for the Kern County Water Agency (September, 1977); Bookman-Edmonston Engineering Inc., Report on Feasibility of a Project for Acquisition and Operation of an Irrigation Distribution System for James-Pioneer Improvement District of North Kern Water Storage District (September, 1978).

25. Ford, R. "Ground Water Use in California", 31 California Geology 247 (1978).

26. Material on the Arvin-Edison Water Storage District conjunctive use program was obtained from an unpublished memo entitled "The Arvin-Edison Water Storage District Project" provided by the Arvin-Edison Water Storage District. For examples of other recharge programs in the San Joaquin Valley, see Martin, L. "Consolidated Irrigation District" and Pyle, S. "Groundwater Recharge in Kern County" in Groundwater Symposium: Recharge and Regulation (University of California Cooperative Extension and Fresno Agribusiness Steering Committee, eds., 1978).

27. Information regarding attempts to develop conjunctive use programs for State Water Project water and the Mojave-San Bernardino program in particular were derived from the following sources: An interview with Verne Cline of the Department of Water Resources on June 5, 1978, an interview with Marci Steinberg of the Department of Water Resources to the Mojave Water Agency dated May 3, 1978; letters from the Department of Water Resources to the San Bernardino Valley Municipal Water District dated May 15, 1978, and June 2, 1978; and Department of Water Resources, Bulletin No. 118, California's Ground Water (1975).

28. The material on the attempted Mojave adjudication was obtained from the following sources: Pleadings submitted in Mojave Water Agency v. Abbey, et al., No. 130759, San Bernardino County Superior Court; Marable, "M.W.A.: Lots of Planning, Little Produced", The Sun Telegram, Jan. 26, 1976 at Section B; Cal. Civ. Proc. Code Sections 581, 583 (West 1976).

29. The information on the Goleta groundwater situation was obtained from the following sources: Robert Goodwin, counsel for the Goleta County Water District, in two telephone interviews, April 27, 1978, and May 25, 1978; Robert Jones, in a telephone interview, November 29, 1978.

30. The doctrine of intervention of public use is discussed in the following cases: Peabody v. City of Vallejo 2 Cal.2d 351, 377-80, 40 P.2d 486 (1935); City of Lodi v. East Bay Mun. Utility Dist. 7 Cal.2d 316, 345, 60 P.2d 439 (1936); Hillside Water Co. v. Los Angeles 10 Cal.2d 677, 688-89, 76 P.2d 681 (1938); City of Pasadena v. City of Alhambra 33 Cal.2d 908, 920, 207 P.2d 17 (1949).

31. Information regarding the Anderson Farms Company-Berrenda Mesa Water District proposed transfer was derived from the following sources: Cal. State Water Resources Control Board Decision No. 1474 (September 22, 1977); Staff Summary for Hearing, In the Matter of Alleged Waste, Unreasonable Method of Use or Unreasonable Method of Diversion of Water by Anderson Farms Company (August 25, 1977); Engineering Staff Analysis of Record Export of Groundwater from Yolo County to Kern County (September 21, 1977).

32. Cal. State Water Resources Control Board Decision No. 1474 at 14-15 (September 22, 1977).

33. Glenn County Ordinance No. 672 (1977); Butte County Ordinance No. 1859 (1977); Imperial County Code Sec. 56200 et seq.

DECEMBER 19, 1978

COMMENTS ON THE FINAL REPORT

OF

THE GOVERNOR'S COMMISSION TO REVIEW
CALIFORNIA WATER RIGHTS LAW

IRA J. CHRISMAN, MEMBER

The above titled report is the product of intensive study, indepth research and time consuming effort on the part of both the members and the staff of the "Governor's Commission To Review California Water Rights Law." Given the differences of philosophical views, areas of interest together with areas of concern inherent within the Commission membership, it became apparent at an early date that unanimity of opinion would be impossible to achieve. With this in mind and with no acrimony whatsoever, the Commission members themselves agreed that the completed report would represent the majority point of view but not necessarily the opinion of each member as to each recommendation.

With the work of the Commission completed and the report moving to publication, I desire to add some comments and express a few personal concerns.

Despite statements to the contrary it is important to bear in mind that the Commission has not expressed opposition nor does it oppose further orderly water resource development in California.

While the Commission's assignment was to review water rights and not necessarily the water resources and water requirements of the State, failure to do so is regarded by many as a weakness in the report not to address itself to the practicalities of providing adequate quantities of water to meet the State's ever increasing needs.

A significant number of witnesses appearing before the Commission and in prepared statements called for the implementation of the "California Water Plan" as detailed in Bulletin No. 3 of the Department of Water

Resources and adopted by the legislature in 1959. The State Water Project, a part of the California Water Plan, approved by the voters in a State-wide election in 1960, has only its initial phases completed. This project, with contractual commitments of 4,230,000 acre feet, is presently delivering approximately one-half of that amount. A strong plea is made for the completion of the State Water Project in order that water deliveries will be available to meet all of the contractual commitments which were solemny executed between the State of California and thirty-one contracting agencies who are paying the full cost of their share of the physical facilities even though a number have yet to receive water. I would also note that based upon the accepted sanctity of such contracts land was brought into production and an economy developed in anticipation that supplemental water would be available.

Along with other important needs for water in California, the value of an adequate supply for agriculture, the State's largest industry, should not be underestimated. Agriculture contributes in excess of nine billion dollars annually to the economic well being of California and its contribution to the National balance of trade accounts for about 12 to 14 percent of the total. Certainly the good health of agriculture impacts significantly upon the financial sector as well as upon the financial integrity of California.

Much has been said about the value and importance of the conjunctive use of water. However, it is a truism that without a supplemental supply of water a conjunctive program would be impossible to implement.

An early decision of the Commission in the area of groundwater was to stress management as opposed to adjudication. The recommendations place the primary responsibility for management and control at the local level. Studies are presently under way to detail boundaries of proposed groundwater management areas. These studies are under the direction of the Department of Water Resources. Ultimate designation of such areas will be a function of the State Water Resources Control Board. At the moment there is significant concern expressed as to a precise definition of "local control." Many have indicated that given the role of the State in this area, approval of the concept of local management and control is viewed

as actually being State control.

Though it was explained on a number of occasions that the Department of Water Resources was in the process of doing a study on the costs of implementing the proposed program, the question of costs in this area surfaced frequently and is a matter of substantial concern.

A considerable degree of apprehension was noted among those who expressed fear that an effort would be made to change the established schedule of priorities.

In closing these comments and observations I would suggest that I have spent a good part of my life in assisting others, throughout the State, meet their needs in areas of water resource development, flood control, water conservation and the many other related fields involving water.

I sincerely believe however, with due consideration given the respect I have for the members of the Commission with whom I have served, that were these recommendations actually implemented such action will further complicate the already complex existing water laws of California and could well be a deterrent to those who are or will be responsible for meeting the future water needs of California.

Respectfully submitted,

Ira J. Chrisman, Member,
Governor's Commission To Review
California Water Rights Law

MINORITY REPORT ON THE SUBJECT OF RIPARIAN RIGHTS

The Commission's recommendations do not, as some have urged, lay waste to the doctrine of riparian rights long recognized in California. However, two of the recommendations affecting riparian rights would appear to lead to undesirable ends.

The Commissions' Recommendations.

In the chapter on Certainty, the Commission recommends the addition of Section 2769.5 to the Water Code to authorize the court in a statutory adjudication to "quantify riparian rights in the decree" and then to "accord unexercised riparian rights priorities lower than those it accords to active uses of water if necessary to secure the reasonable beneficial use of water within the meaning of California Constitution, Article 10, Section 2."

Then in the chapter on Efficiency, the Commission recommends adding Section 1746 to the Water Code making it possible to transfer any water right determined under a court decree in a statutory adjudication, which would include those rights originally derived from riparian status.

Nature of Riparian Rights.

Riparian rights to the use of water pertain only to those parcels of land abutting the watercourse. A riparian user does not have a right to any specific amount of water, but has a correlative share in the natural flow of the stream in common with the other riparians on the stream. The riparian right is limited to use upon the riparian parcel (and only to that portion of the

parcel within the watershed of the stream), is subject to the "reasonable, beneficial use" limitation of Article 10, Section 2, of the California Constitution, and is subject to being diminished as portions of the riparian parcel are "severed" from the stream by transfers without reservation of rights.

Thus, although the extent of the riparian right is not "quantified" in the sense of being fixed absolutely to a certain number of acre feet or cubic feet per second, the exercise of the right is limited to a correlative share of natural flow, to use upon the riparian parcel, and to reasonable, beneficial uses.

Since the riparian rights are, generally speaking, entitled to the first priority on the stream, they can be seen as preserving to the lands through which the stream naturally flows the first right to make beneficial use of the natural flow of that stream.

To the extent that potential riparian uses are not exercised, the flow of the stream is available to preserve instream values and, potentially, the appropriations from the stream, in the order of their priorities.

Criticism of Commission Recommendations

A. Assigning Unexercised Riparian Rights Priorities Lower Than Other Active Uses of Water in a Statutory Adjudication.

This recommendation embodies four basic flaws.

First, it attributes a certain wisdom to the current degree of exercise of the riparian right and "freezes" the riparian right at its current useage. Suppose, however, that sometime after the decree in the stream adjudication has been entered cropping patterns

change favoring irrigation, or increased irrigation, of the riparian lands; or that seasonal flooding of the riparian land becomes necessary to provide habitat for important waterfowl populations; or that a fish hatchery becomes necessary to preserve fish population; or that riparian land is converted to an urban or industrial useage critical to the economy requiring increased water useage. Are we so wise now that we should preclude later exercise of riparian rights for such socially and economically valuable purposes?

One might argue that, if socially or economically valuable, the uses will be supported elsewhere. But is this the best policy? Allocations of water to lands removed from the stream, especially if remote, require a substantial investment of other resources which are becoming increasingly overburdened. Energy is in great demand. Canals and power lines criss-cross the countryside, creating special burdens on farmers, transportation interests, natural values, urban planners, and perhaps others. There is wisdom in providing the first opportunity for changing or emerging uses of water to the lands contiguous to the supply.

Secondly, establishing lower priorities for unexercised riparian uses will surely create a "race to the pumphouse" to enlarge the exercise of riparian uses whenever a stream adjudication is imminent. The history of water rights law in California and elsewhere enforces this conclusion.

Thirdly, the goal sought to be achieved by this recommendation is greater <u>certainty</u> on the assumption that lack of certainty is somehow inhibiting either the riparian owner, other junior users, or the administration of water rights. There was competent testimony before the Commission, however, that there is considerable knowledge as to

the extent of riparian claims on the streams most important to current water useage and development in California, brought about through contractual arrangements with the riparians, previous stream adjudications, and by competent investigations (See, e.g., testimony of Gleason L. Renoud, December 8, 1977, Stockton, California).

Finally, in the three California appellate court decisions dealing with the subject, the courts have concluded that the attempts to assign lower priorities to unexercised riparian rights in statutory adjudications was improper. (See In Re Waters of Soquel Creek Stream System (1978) 79 Cal. App. 3d 682, In Re Waters of Long Valley Stream System (1978) 84 Cal. App. 3d 140 [hearing granted by the California Supreme Court on October 18, 1978], both of which rely heavily upon the earlier California Supreme Court decision in Tulare Irrigation District v. Lindsay Strathmore Irrigation District (1935) 3 Ca. 2d 489). Since the California Supreme Court has granted a hearing in the Long Valley case, some new law on this subject may be made in the near future. However, for the reasons stated above, the Commission's recommendation should not be pursued; rather, legislation specifically precluding the assignment of lower priority to unexercised riparian rights in statutory adjudications would be preferable.

B. Transferability of "Adjudicated" Riparian Rights.

There are additional reasons why riparian rights, once adjudicated, should not be transferable from the riparian lands or, at least, why such transfers should be limited geographically.

In the first place, as noted previously, encouraging expansion of riparian useage (to avoid loss of priority) will adversely impact upon the yield of water development projects and upon existing and

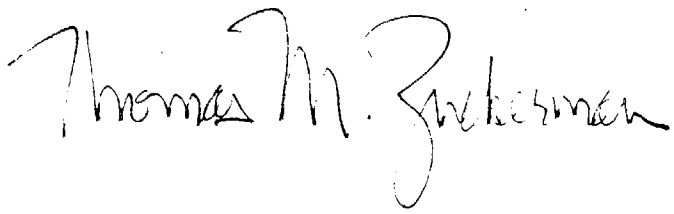
future appropriations from the stream. Allowing transferability from the riparian parcel will create additional economic incentives to such expansion in useage.

Secondly, allowing riparian rights to be severed from the riparian land and sold to other, perhaps remote, users may encourage premature or unwise conversions in useage of riparian lands. It is not inconceivable that the value of the transferable water rights may greatly exceed the combined value of the land and the otherwise non-transferable riparian rights. This could encourage, for instance, a sale of the riparian-derived rights and a conversion to ground water (thereby increasing the demands on limited ground water supplies), otherwise undesirable conversions of farm land to urban uses served from another water source, or abandonment of agricultural or other uses important to the local economy (with attendant social disruptions). Although it is certainly not totally avoidable, it is best to avoid where possible allowing the economic and social health of any area to be dictated by the self interest of the individual, especially where such a basic natural resource as water is concerned. Although in economic terms there may be an overall balance when the local farmers sell their water rights to remote users creating new economies, perhaps using the proceeds to retire in a grand manner to a resort community, society has to deal with the potential disruptions created, for instance, by the closing down of the cannery which relied upon the vegetables formerly grown on the land from which the water rights were transferred.

Thirdly, the Commission's recommendation may not be consistent with the so-called "area of origin" statutes which create a preference for useage within the area in which water originates.

Since the Commission elected not to consider any changes in the "area of origin" statutes it is doubly important that the Commission's recommendations not be susceptible of interpretation as being intended to modify the important policies of those statutes.

These objections to the transferability of adjudicated water rights which originated as riparian rights (and which would be as applicable to other types of water rights) could be largely obivated by including in the recommended statute (proposed Water Code Section 1746) a further restriction upon transfers of adjudicated rights to other users within the "area of origin", or requiring a finding that significant adverse impacts upon local economic or social values would not result from the transfer.



APPENDIX

List of Staff Background and Issues Papers

1. M. Archibald, "Appropriative Water Rights in California" (May 1977).
2. A. Schneider, "Groundwater Rights in California" (July 1977).
3. C. Lee, "Legal Aspects of Water Conservation in California" (August 1977).
4. D. Anderson, "Riparian Water Rights in California" (November 1977).
5. C. Lee, "The Transfer of Water Rights in California" (December 1977).
6. A. Schneider, "Legal Aspects of Instream Water Uses in California" (January 1978).

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