

**GOVERNOR'S COMMISSION
TO REVIEW CALIFORNIA WATER RIGHTS LAW**



FINAL REPORT



DECEMBER 1978

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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 ground-water.

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 water-master 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. -- These 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.

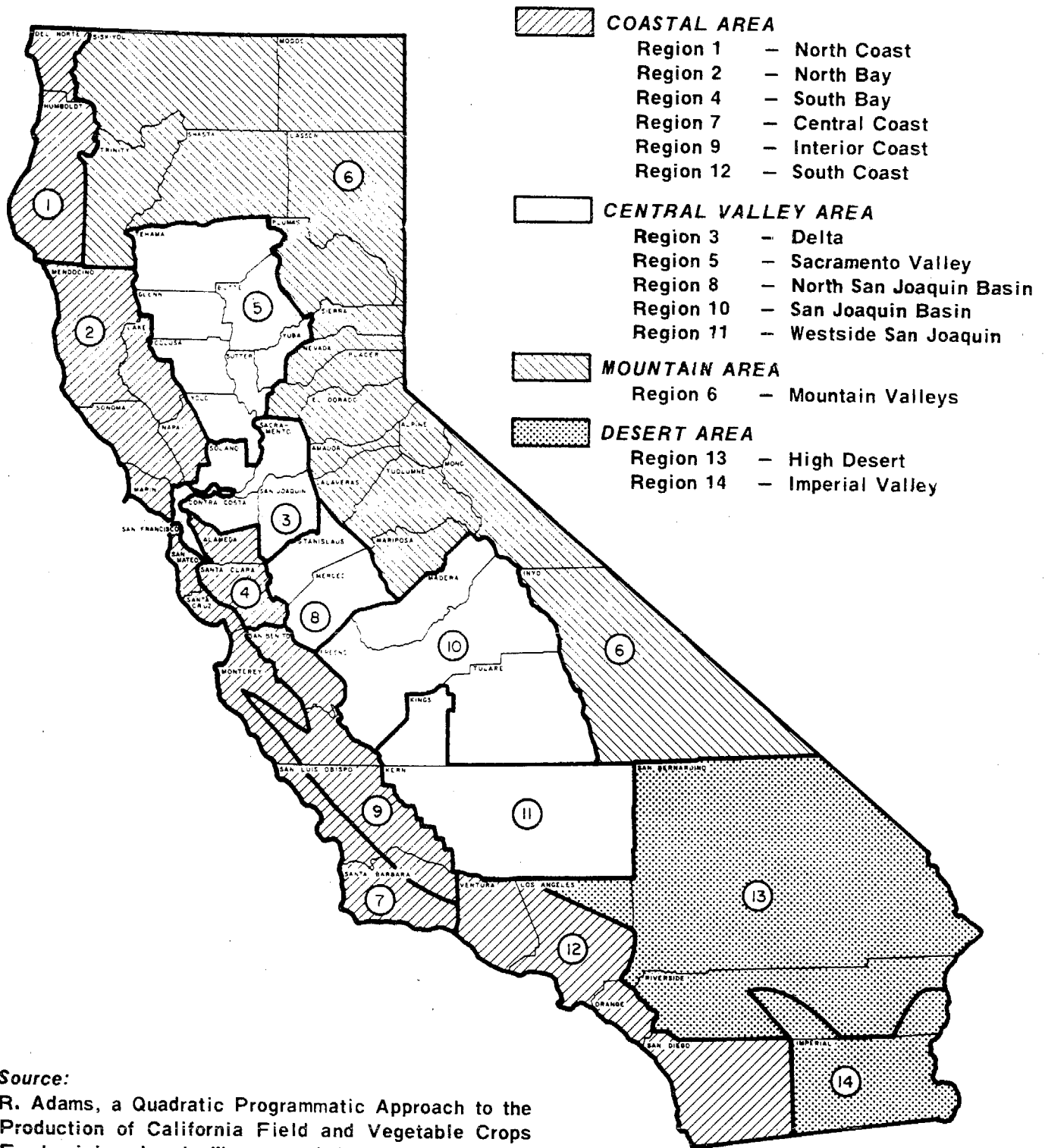
Economic theory suggests that a necessary condition of economic efficiency is that all users of a resource derive equal value from the last unit of the resource each user has consumed.^{9/} The marginal value of water to a consumer is the value to that consumer of the last unit consumed. For any consumer, 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)

	<u>Light rain</u>	<u>Drought</u>	<u>1976</u> (base year)
<u>Region 5</u>			
Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Yolo	\$ 25.86	\$ 26.84	\$22.81
<u>Region 3</u>			
Solano, Sacramento, Contra Costa, San Joaquin	84.55	93.83	44.94
<u>Region 8</u>			
Stanislaus, Merced	60.04	65.62	23.54
<u>Region 10</u>			
Madera, Fresno, Tulare	100.00 ^{b/}	100.00 ^{b/}	55.94
<u>Region 11</u>			
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~~ 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 ^{29/} uses.

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 management of the water resource. 44/

The Board suggested a physical solution that would protect instream uses and satisfy the needs of EBMUD. EBMUD 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 division 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	<u>74</u>	<u>40</u>	7	3,950	14	(10)	<u>4,075</u>
	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.