

Department of Veterans Affairs—Continued

At the present time the population is eight, which is the basis for the budget request. However, it should be pointed out that the contract cost is \$250 per month per member at the present time, but it is proposed to be increased to \$275 per month for the budget year. This would be an annual per capita cost of \$3,300 per member which we feel to be much more reasonable than attempting to have the State operate the institution.

At the time of leasing the physical facilities to the private contractor in May, 1954, a five-year lease was entered into which brings in \$12,000 in revenue per year. This would indicate that the net per capita cost is \$1,800 per year. This compares favorably with the annual per capita cost of \$1,834 in 1947-48 when the State operated the facility with a total member population of 38. It should be kept in mind that per capita costs in general have risen sharply as a result of increased costs of commodities and labor.

Consequently, we recommend approval of the amount requested.

WATER AGENCY BUDGETS

The budgets of the major water agencies are changed substantially this year from previous years. In part this reflects the reorganization enacted by the last session of the Legislature, but it also results from the initiation of work on the Feather River Project and the addition of new activities. General consideration of each of these three influences may be helpful to show the change in scope of this budget.

Chapter 52, Statutes of 1956, reorganized the major water agencies of the State. The former responsibilities of the Director of Public Works, the State Engineer and the Division of Water Resources, the State Water Resources Board and the Water Project Authority were transferred to the new Department of Water Resources except for certain water rights activities which were given to a new agency, the State Water Rights Board. The result was to create one major water agency in the State which was empowered to plan and construct projects and carry on many diverse statutory duties of importance.

The appropriation of \$9,350,000 in last year's Budget plus the deficiency appropriation of \$25,190,000 last month for the initiation of construction work on the Feather River Project, represents a monumental change in the program and budget problems of the Department of Water Resources. Considerable specific comment on this matter will be found later in this analysis.

A number of new activities are proposed in several water agency budgets. Taken individually, these new activities appear isolated and without any particular pattern. However, when placed side by side, they indicate a strong tendency to project the State into a much more active role in water problems. This role places more emphasis on supervision and policing of both water resources developments and the preservation of water rights. In some cases these new activities may result

Department of Water Resources—Continued

in state protection of private rights which have traditionally been preserved by suits in equity. Some of the more significant of these new activities are listed below.

1. The State Water Rights Board proposes test suits under Section 1052 of the Water Code to enjoin illegal diverters of water.
2. The State Water Rights Board proposes field investigations, where no protest is filed against an application for a permit to appropriate water, to assure that the application, if granted, will not injure existing rights.
3. The Department of Water Resources has been collecting water rights data during the course of its interstate compact commission investigations and trial distributions on the Sacramento, Feather and American Rivers. It now proposes to amend Chapter 61, Statutes of 1956, known as the Regan Bill, to authorize the department to collect data on water rights and diversions in areas of origin.
4. The State Water Pollution Control Board is requesting funds to establish its previously limited pollution monitoring program on an expanded, state-wide basis.
5. The Department of Water Resources proposes to prepare state filings on all remaining unappropriated waters of the State which may be needed for the California Water Plan.
6. The Department of Water Resources proposes new statutory authority permitting it to inspect and to require proper maintenance of flood control facilities constructed by the Corps of Engineers and maintained by local flood control agencies.
7. The Department of Water Resources anticipates that the stipulated agreement expected to result from its work on the Sacramento River and Delta trial distribution will place this area under the supervision of the Watermaster Service.
8. The Department of Water Resources proposes to intercede in any Federal Power Commission proceedings or in hearings before the State Water Rights Board to protect and further the California Water Plan.

In general this analysis raises no major budgetary objections to these new activities. They are collected here so that the Legislature may have a more complete picture of their significance.

In the preparation of this Budget analysis, some basis was needed to evaluate requests for new money and increased allowances for existing activities. In general, highest priority was given to three phases of the State's water activities: (1) construction of the Feather River Project; (2) furtherance of the California Water Plan; and (3) providing for work load increases in existing duties and responsibilities. Except where new activities could be related to the three items above, a cautious approach is recommended, not only because some of these new activities can be deferred, but also because it is doubtful that recruitment and management considerations will permit wise and economical administration of too many new activities and responsibilities. -

Department of Water Resources—Continued

It is apparent that the impending large construction program of the State in the field of water resources development will utilize all the financial resources of the State in order to carry it through. Therefore, this analysis of the water agencies has given special attention to the handling of funds and to making recommendations for tighter budgeting, which would provide not only better legislative control of these vast new undertakings, but would also put all funds to work by eliminating idle money.

In the case of the State Water Rights Board and the Department of Water Resources, the major program changes and staff augmentations authorized by the Department of Finance as a part of the reorganization and the assumption of new duties and responsibilities, have obscured the record of the previous year as a basis upon which to evaluate this year's budget requests. Many of the changes are not yet fully determined. For these reasons it is impossible to give these two budgets the full consideration that they should have. More complete analysis will have to wait until next year when new positions will have been filled, work load will have been established and procedures and internal organization more clearly specified.

DEPARTMENT OF WATER RESOURCES

ITEM 262 of the Budget Bill

Budget page 953

Budget line No. 38

FOR SUPPORT OF DEPARTMENT OF WATER RESOURCES FROM
THE GENERAL FUND

Amount requested	\$4,007,452
Estimated to be expended in 1956-57 Fiscal Year	2,043,470
Increase (96.1 percent)	\$1,963,982

Summary of Increase

	Total increase	INCREASE DUE TO		Budget Line page No.
		Work load or salary adjustments	New services	
Salaries and wages	\$1,222,976	\$1,222,976	—	968 10
Operating expense	248,063	248,063	—	968 11
Equipment	353,260	353,260	—	968 12
Plus decreased reimbursements	139,683	139,683	—	968 27
Total increase	\$1,963,982	\$1,963,982	—	968 30

RECOMMENDATIONS

Amount budgeted	\$4,007,452
Legislative Auditor's recommendation	3,641,817
Reduction	\$365,635

Summary of Recommended Reductions in Budget Item 262

2 Geologists (office of staff geologist)	\$15,975
33 Clerical positions (Division of Administration)	122,000
3 Engineers (reports and review)	27,660
Salaries and wages for San Joaquin River Flood Control Project (Division of Design and Construction)	200,000
Total	\$365,635

Department of Water Resources—Continued
GENERAL ANALYSIS

This budget contains all the funds and activities previously budgeted under the Division of Water Resources, the State Water Resources Board and the Water Project Authority, except the State Water Rights Board. The state operations section of the department's Budget covers the director's office, the Division of Administration, the Division of Resources Planning and certain nonconstruction activities of the Division of Design and Construction. Appropriations for the Feather River Project are in the capital outlay portion of the Budget under Budget Items No. 417 and 418.

The joint impact of the initiation of construction of the Feather River Project and the departmental reorganization have presented many almost insuperable problems for the new department. New water resources development policies were needed; large amounts of paper-work and attendant delays were required to transfer personnel to the new department, secure authorization for new positions and revise accounting records; new personnel had to be hired and trained in new positions; supervisory staffs had to assume unfamiliar duties and expanded responsibilities; while in the background the largest water development program in the State's history had to be pushed to avoid delay and to meet legislative mandates.

In the face of these formidable difficulties, a great deal has been accomplished. This accomplishment is largely attributable to the increased effort, devotion to duty, and recognition of the seriousness of the problems confronting California in the field of water, which have motivated large numbers of the department's staff to overcome many of these obstacles.

However, the accomplishments to date are also a measure of the problems which lie ahead. The decision of the Legislature to construct the Feather River Project and to establish the Department of Water Resources has set in motion a vast new field of state activity and responsibility, the present outlines of which are not clearly defined and the future of which is virtually unknown. From the steps taken so far, however, it seems reasonably clear that the Department of Water Resources has certain distinctive characteristics which cause it to be different from other departments of State Government.

The typical state agency expends money providing a service to the public which is paid for by taxes, assessments or fees. It is not a business type operation and produces virtually no revenue. It has no responsibility to invest large amounts of public funds in such a manner that these funds are repaid through the charges and rates which it determines by contractual negotiation with its customers. All of these responsibilities the Department of Water Resources now has under the Water Code. These responsibilities have awaited activation by the decision to construct the Feather River Project, a project which is so large that every aspect of its financing, construction and operation exceeds any similar state activities in size and geographical scope.

The Department of Water Resources has evolved almost exclusively from the nucleus formed by the former Division of Water Resources,

Department of Water Resources—Continued

which was primarily an engineering and planning organization. But the program of the Department of Water Resources is not just a modification or expansion of the old program of the Division of Water Resources. Within several years those original duties will constitute only a small portion of the new department.

This analysis does not raise any major questions on the present organization structure of the Department of Water Resources. The department has prepared general plans for future transitional changes in organization to cope with its expanded activities and responsibilities. While it is our belief that the department's experience in the immediate future will show the need for considerable revision in its approach to long range problems of organization, we are not here concerned with such long range organization problems. We are concerned that our review of the department's Budget indicates that it does not adequately reflect the need for immediate attention to the problems of business management of a revenue producing agency, organization for adequate program and cost control, maintenance of an adequate capital records system and initiation of work on contracts and rates for sale of water and power, all of which are problems now facing the department. Essentially the department's Budget for next fiscal year requests more engineering and clerical positions to be added to an already predominantly engineering staff. Specific recommendations on this problem will be made further in this budget analysis. It may be observed, however, that the existence of this problem is not solely attributable to the Department of Water Resources, but that the Department of Finance and the Personnel Board have shown reluctance to appreciate the essentially different nature of the department's program and to foresee the need to undertake work on these broader problems before the need becomes overwhelming.

We have not found any indication that the department's Budget for next fiscal year contemplates the establishment of a strong program and cost control staff. During the next year, many decisions will be made which will ultimately have far-reaching effects on the total cost of the Feather River Project and other projects to be built in California by the state or local agencies. It is natural for engineers to provide the best engineering solutions to the problems they face, but frequently these solutions result in "gold-plating" the structures to be built and in incurring substantial additional costs. These are costs, most of which will be eventually repaid by water users and other project beneficiaries. This problem has afflicted the Bureau of Reclamation in its work and was recognized by Congress as one of the reasons for passing the Small Reclamation Projects Act and also for providing loans for local construction of distribution facilities. We feel that it is important to the Legislature and the department that a strong cost control system exist within the department to minimize "gold-plating" and to hold project costs to original estimates and appropriations.

Department of Water Resources—Continued

During the past six months, the Department of Finance has barely been able to keep up with the existing Budget, fiscal, and management problems related to water resources. Turnover in staff and related problems have added difficulties. At the present time, we see no evidence that the Department of Finance is preparing to strengthen its own position in order to surmount its own problems caused by the greatly expanded water resources development program. Solutions to many of the fiscal problems related to water resources development are unlikely under present conditions.

As will be evident further in this analysis, a considerable number of recommendations for revisions in the Budget format have been made. While these recommendations will also result in improved administration within the Department of Water Resources, their principal purpose is to assure strong and effective legislative review and control over this major new program.

The department's Budget indicates that substantial portions of its program for the current fiscal year will not be completed. Thus \$3,415,100 will carry over into next year on the Feather River Project and \$284,300 will revert in the state operations portion of the Budget. In addition, a pro rata charge for departmental administration was levied against various appropriations to pay costs of establishing the Division of Administration. This charge of \$120,000 represents program work remaining undone. A program change has also resulted in the expenditure of a substantial sum from the California Water Development Program to finance the costs of revising Volume 3 of the California Water Plan. Thus, better than \$3,820,000 of the department's original program for the current fiscal year will remain incomplete. If expenditures during the remaining portion of this fiscal year do not meet expectations, even more money may remain at the end of this fiscal year.

It is thus apparent that there is a limit to the size of the program that the department can undertake. The most obvious limitation is in the number of employees who can be recruited, for each new activity now added to the department requires adding personnel to accomplish it. There are also good, sound management considerations which limit the speed at which an organization can wisely and economically expand. In both respects, the department appears to have reached its limitation on rate of expansion at this time. As of December 30, 1956, the department had approximately 730 employees. During the period from July 6, 1956, to December 30, 1956, the department hired approximately 150 new employees. At this rate, which is probably the maximum for new hires during the remainder of this fiscal year and during next fiscal year unless unforeseen conditions develop in the labor market, the department will have approximately 880 filled positions by June 30, 1957, and 1,180 by June 30, 1958. This compares with 1,180 and 1,282 positions respectively in the Budget. It should be noted that should the department hire away large numbers of employees from the federal agencies in the area (the most likely source of personnel familiar with water problems), there will be little if any net advantage to California's water problems because there is a possibility then that the federal water resources development program will fall behind schedule.

Department of Water Resources—Continued

It would appear from the above paragraph that the maximum strength the department can obtain by June 30, 1957, is approximately 880. Deducting 880 positions from the authorized total strength of 1,180 for the department, an estimated salary savings of 300 positions appears more in order than the 173 positions contained in the Budget. Computed on the same basis, the salary savings for next fiscal year seem fairly reasonable. However, there is no certainty that the present rate of recruitment can be maintained during the next 18 months. In any event, it is clear that the work outlined in the department's Budget request for the next fiscal year is approximately the maximum that can be accomplished under presently foreseeable conditions.

The fact that there may be approximately 300 positions in the Budget which cannot be filled during the current year indicates that there is no effective administrative control over the Department of Water Resources during the current fiscal year except the total number of dollars appropriated. The department has included in its base for next year's Budget an increase of almost 100 percent in the number of positions over the positions authorized for last fiscal year. While most of these new positions resulted from the special appropriations for the Feather River Project, there is no way now to account for these positions or to determine the basis used by the Department of Finance when it authorized them. This is the base on which the request for 128 new positions in the next fiscal year is built. In many instances, it is not known what the positions authorized for the current year are doing or should be doing, particularly when hundreds of them will not be filled, and as a result there is in many instances no purpose served in a detailed examination of the new positions requested for next year.

Inability to analyze precisely the staffing needs of the department to execute its proposed program would not be so serious as might at first appear, if the department's dollar needs can be determined on the basis of a program, or reasonably precise definition of the work to be done. Much of the effort of this analysis has been devoted to that end. However, legislative control of the department's program is still ineffective because it is not possible to determine the dollar requirements to execute the program.

Our Budget review thus comes full circle back to where we started, that the current year is no valid basis upon which to evaluate fully the department's Budget request for next year. Before going further into this problem, it may be well to emphasize that the present Budget is a great improvement over preceeding Budgets which split money between several agencies. We are convinced that in many quarters, the deficiencies in the present Budget are recognized and that many of them would have been corrected if the limitations of time had permitted. This being the case, we have concentrated our attention on a few of the problems in the department's Budget with a view to further improvement next year.

The use of the departmental revolving fund confuses budgeting and results in a lump sum of several hundred thousand dollars in the current year which cannot be adequately related back to program and

Department of Water Resources—Continued

staffing. This effect appears to be so serious that it can vitiate all efforts at responsible budgeting. It is recommended that the use of the revolving fund be held to a minimum and that charges be made directly against appropriations wherever possible.

The charging of employees' time to support or work orders is always a difficult problem, one which will require careful control and responsible procedures. It is also particularly difficult to exercise effective budgetary and management control when work can be charged to a number of Budget items. Recommendations for simplification will be made below.

The present organization of the department requires a system of crisscrossing reimbursements and charges from one division to another, from one branch to another and from one section to another. Some solutions to this problem will be considered in more detail below.

The peculiar relationship that the department's organization bears to its Budget problems is worthy of some special discussion here because this is the first time that the present organization has appeared in the Budget and any patterns established at this time will be controlling for a number of Budgets in the future. Essentially the difficulty arises because the department's organization of two line divisions and an administrative division, while being a most important step in the direction of functional organization, still retains many elements of the old organization consisting of special study or project groups. This is reflected in the various branches, sections and units which bear titles such as Special Activities, Special Studies, etc. In addition, economic studies, geologic investigations, mapping and land classification work are all separated into service groups which contract with the branches which utilize their services. Finally, the Los Angeles District Office cuts across all these organization lines in certain respects by being partly a miniature of the department and partly unique. As a result, only the Director and his deputy are completely responsible for any segment of the department's work. Branch chiefs, who should have responsibility for a major segment of the department's program, find that they are coordinators between their immediate subordinates, independent service staffs and independent counterparts in the Los Angeles Office. In fact a large part of the department's staff works on a reimbursable basis for some other part of the department.

It is not surprising, under such circumstances, that the effect of adding or deducting any portion of an investigation or other work in the department's budget cannot readily be traced back through such a complex system to determine its effect on staffing and operating expenses. Even worse, this system will cause more difficulty than in budget preparation when it becomes necessary to execute a budget program with efficiency and economy. This problem has not yet arisen in the department because there has been plenty of money. In fact, the difficulty has been to spend the money. When that day arrives, it will be necessary to place clear-cut and full responsibility on each of the principal supervisors of the department.

Department of Water Resources—Continued

This analysis recognizes that it is never possible to place full and exclusive responsibility for each segment of an agency program in a designated supervisor. Coordination and interrelationships must exist. The need then is to strike a proper balance in which coordination is compatible with the necessary responsibility. A number of rather easy and specific changes within the department would greatly ease the present difficulties. Some of these will be specifically noted below.

It has been observed that the staffing patterns of the department's budget run heavily to hydraulic engineers, even where hydraulic engineering is not essential and other engineering skills will suffice. As is customary in any engineering organization, there is a tendency in the Department of Water Resources to staff on the basis that any work remotely related to engineering must be done by a graduate engineer. This is particularly evident in the Contracts Administration Section, the Marketing Section and the Reports and Reviews Section, where other skills than those strictly encompassed in engineering training would not only be helpful, but would seem to be essential. It is also noted that the Design Branch proposes the exclusive use of professional engineers on the drawing boards where the careful selection and placement of engineering aids and draftsmen can handle certain phases of the work. In fact there are many other places in the department where subprofessional skills can effectively be used. It has become widely recognized throughout management circles in business and government that the wise use of subprofessional employees is one of the answers to the increasing shortage of professional engineers. It seems proper that the Department of Water Resources should also move in this direction and actively encourage the use of subprofessional employees.

Director's Office**GENERAL SUMMARY**

The Director's Office of the Department of Water Resources is a large organization with a total of 60 authorized positions financed in the Budget for next year. More than half of these positions are carrying on work, some of it day-to-day operations, which should not be in the Director's Office. As a result, only four or five of these positions are directly offering staff assistance to the director. The director and deputy director lack the type of assistance they need in controlling a rapidly expanding program and in making the many important policy decisions which await their attention. Although the future organization of the department contemplates moving some of this essentially routine work out of the director's office, the future organization does not provide any additional staff assistance to the director and deputy director.

In this part of the department as in other parts, it has been impossible to evaluate specifically the needs for staff and funds, and frequently to determine precisely what is involved in staffing proposals. For example, in the activity Supervision of Safety of Dams, last year's budget shows that 16 positions were authorized for the current fiscal year. The current year in the present budget shows 17 authorized positions, with two more new positions requested for a total of 19 in

Department of Water Resources—Continued

next fiscal year. However, the department's report to the Assembly Committee on Governmental Organization, dated January 4, 1957, shows on chart No. 3 that there are 14 existing positions and two new ones are requested for next year, to bring the total to 16. For this and other reasons it is not possible to comment specifically on all the staffing provided by this budget. Where specific problem areas have been uncovered, they will be considered and recommendations made.

ANALYSIS

Three new positions are being requested for the water rights work in the director's office. These positions appear justified on the basis of the new state filings to be made, the hearings to be held on existing state filings and the need to appear before the State Water Rights Board to present the California Water Plan and outline its relationship to applications being heard by the board. Care should be exercised, however, to assure that the department does not try to reflect the general public interest before the State Water Rights Board, since it is the responsibility of the board to act in that capacity on permit applications.

Two new engineering positions are requested for Supervision of Safety of Dams. Although it appears that these positions are justified, there is a serious organization problem here. The department proposes that the Supervision of Safety of Dams activity should review and approve all plans for dams prepared by the department in the project planning stage and in the design stage. It is stated as justification for this approach that the Water Code requires it. With this we disagree. The Supervision of Safety of Dams is an exercise of the police powers of the State to further public safety and there is no reason to assume that one arm of the State can protect the public safety better than another, except in terms of experience of personnel on the job. The responsibility for the final design of state constructed or designed projects lies with the director, who also has sole responsibility for approval of safety of dams. In fact, it is only a question of internal organization of the department as to how the plans are reviewed and prepared for the director's final approval and we do not see the need for double review to assure that the public safety is considered. If more experience is available in one staff than on another, then the Feather River Project should have the services of some of the staff engaged in supervision of safety of dams in the design stage and not as a review. Considerable attention is given to this problem in this analysis since similar situations arise elsewhere in the department. The effect of this practice of rechecking someone else's work when no original point of view or special contribution is involved is to confuse responsibility and add to the costs of operation. Only a small part of the justification for the two new positions is based on this type of review. Therefore, we do not recommend their elimination.

Department of Water Resources—Continued

2 Geologists (Budget page 955, line 79)----- \$15,975

Two new positions are requested to coordinate the geologic program of the department. The problem here is somewhat different than in the Supervision of Safety of Dams, but it still is a question of who is responsible. The statement of the problem below is tentative because the staff of the department which is most directly involved in this problem was not available at the time of preparation of this analysis.

There is within the director's office a chief geologist with a staff of two geologists. The two geologists assisting the chief geologist are only temporarily assigned to that work and this Budget requests two new positions to transfer them permanently. There is also in this Budget a section of 23 geologists in the Engineering and Data Services Branch of the Division of Resources Planning, a section of 40 geologists in the Design Branch of the Division of Design and Construction and two groups of geologists in the Los Angeles District Office. As long as each major subdivision of the department must have its own geologic staff, it is certainly necessary to incur extra costs to coordinate their work in some way. The extra costs of such an organization are at least the three positions in the director's office, plus duplication of staff in attending meetings and conferences, duplication of staff in reviewing reports and probably idle personnel when variations in work load occur. The departmental orders covering this matter do not clarify this internal organization problem and it is not possible for us to determine between the Chief Geologist, the Chief of the Branch of Engineering and Data Services and the two division chiefs, who is actually responsible for what. Further, this internal organization is one of the reasons why it is virtually impossible to analyze the department's Budget in order to relate staffing to work load and, most important, to relate geologic work to the major program segments of the departments.

It is recommended that the department consolidate most of its geologic work, if not all of it, in one of the line divisions and that the two new positions be denied, since they would then no longer be necessary.

The final increase in the director's office is for a strong public information staff. As a result of the reorganization, the department established a public information staff, directly under the supervision of the special representative of the director. Positions authorized by the Department of Finance for the current year are an information officer II, a research writer and an editorial aid. An assistant public information officer, an audio-visual specialist and a research writer are requested in the next year. Because public information staffs have been subject to abuse by agencies and have been subjected to criticism by the Legislature, this analysis makes a recommendation only with caution. It is suggested that the three positions authorized for this year plus the research writer requested for next year would probably constitute an adequate staff for the department to carry on a passive public information program, that is, prepare speeches for the top officials of the department, prepare important press releases, answer inquiries from the public for information and prepare some publications for release to the general public. The remaining two new positions and

Department of Water Resources—Continued

\$21,744 in operating expense would allow a public information program which would carry the department's message to the public through moving pictures, exhibits, a bulletin and similar media of mass public information.

A new position of assistant director is requested by the department. This position is to assist the director in administrative and management problems of the department. It is one of the two exempt positions authorized for the department. Approval is recommended.

Division of Administration**GENERAL SUMMARY**

The Division of Administration is the administrative staff of the department, including the accounting, central records filing, office services and supply, personnel administration and all typist, clerical, and secretarial help of the department. This division developed when the department established its own accounting staff and added the many administrative duties required of a department, some of which had previously been done under contract by the Department of Public Works.

ANALYSIS

A comparison of the grades and salaries provided for this division with that provided for other divisions of the department reveals that the Division of Administration has only one position which exceeds the salary of a senior engineer, that of the division chief, and four positions which are the equivalent of senior grades. The remaining positions of the division are clerical in nature or else are of a relatively junior level. Nowhere in this division or elsewhere in the department's budget do we find the positions to work on the seriously urgent management problems of the department. This division has no money or positions to acquire experienced personnel who have real background and mastery of the problems involved in a major new construction program of the extent contemplated by the department.

33 Clerical positions (Budget page 958, lines 63-69)----- \$122,000

The Division of Administration shows on its rolls all clerical help for the department, irrespective of where this help is employed and what it is working on. As a result, it is virtually impossible in reviewing the Department's Budget to ascertain the reasonable need for such personnel. A total of 100 intermediate typist-clerks is being requested for next fiscal year. No work load data is presented and it is not indicated where these positions will be used or what they will do. Approximately 33 clerical positions are in the support budget of the Division of Administration for work on the Feather River Project. Since all appropriations for work on the Feather River Project are taken from Capital Outlay Expenditures and these positions will be working full time on the Feather River Project, just as much as the engineering and other technical personnel they serve, their salaries should likewise be charged to the Feather River Project budget item.

Department of Water Resources—Continued

It is recommended that approximately \$122,000 be deleted from the department's support budget and that these positions be charged to the Feather River Project.

It is further recommended that next year the Department's Budget show all clerical positions assigned to the activities they serve and charged to those activities in such a manner that only general administrative overhead is charged to support.

All operating expenses for the administration of the department are carried in the Division of Administration. There is little past experience upon which to evaluate the increases requested for next year. It appears that the requested amounts are relatively in line, but also quite ample.

Division of Resources Planning**GENERAL SUMMARY**

The Division of Resources Planning is the planning agency of the department and is also responsible for the collection of basic data required for water resources development. In addition, it carries on a number of special studies and activities.

At the time this Budget was presented before the committees of the Legislature at the last session, the staff of the Legislative Auditor requested that a comprehensive report be prepared by the department which could be used in evaluating the program for basic data collection in the Fiscal Year 1957-58 Budget. Although the department has been working on this report, it has not been completed and has not been available for use in analyzing the requests for continuing levels of basic data gathering or for increases. Under these circumstances, this analysis is unable to make any comments on funds for basic data collection in this Budget.

ANALYSIS

Eleven new positions are being requested for the electronic data processing program of the department. Ten new positions were authorized during the current year by the Department of Finance. It is the intent of the Department of Water Resources to undertake a major program to convert its processing and storage of data of many types to some as yet undetermined type of electronic machine. Simple manipulations of the data using rented or state-owned machines are under way at present and will be expanded. Eventually the department plans to place complex engineering problems and computations on electronic computers. It also proposes to utilize analog computation for the solution of certain engineering problems.

We feel that this program is valuable and should move ahead with a reasonably high priority, particularly in view of the almost overwhelming demands within the department for machine work on urgent problems. However, we are also aware that serious errors can result from moving too rapidly and trying to accomplish too much in a short period of time. With new personnel being added in all phases of the

Department of Water Resources—Continued

department's work and the major portion of the staff which will work on the computer program still to be hired, it seems that the current objective of the department to decide by the end of this fiscal year on the type of computer to be purchased and to try to have major problems now facing the department ready for the use of a purchased or rented machine by the beginning of Fiscal Year 1958-59, is an exceedingly optimistic schedule.

At the time of preparation of this analysis the department had no written evaluation of its computer needs or statement of its computer program. It proposes to establish 21 positions to work on this program and eventually to spend a large amount of money to purchase a machine. It is recommended that a thoroughly documented report be presented to the Legislature before any machines are purchased. The report should show the costs involved in purchasing, operating and maintaining the machine, the anticipated savings in manpower and increased work load handled, the location selected for the machine, that there is no rented or state-owned machine time available, and that the department's proposed computer program has been reviewed and approved by a competent, disinterested outside authority with background experience in computer problems.

3 Engineers (Budget page 961, line 45)----- \$27,660

The reports and review activity is requesting three new positions. *It is recommended that none of these positions be allowed.*

The major justification for this increase is the passage of two acts by the last Congress, the Small Reclamation Projects Act and the revisions to the Watershed Protection and Flood Prevention Act. There is no indication that the Small Reclamation Projects Act will have been in effect sufficiently long to result in very many reports reaching the State for review during the next fiscal year. The responsibility for state review of small watershed projects for recommendation to the Legislature for authorization lies with the Division of Soil Conservation and not the Department of Water Resources per Section 12867 of the Water Code. The responsibility of the Department of Water Resources is limited only to the recommendation for allocations from the Flood Control Fund of 1946 and this work we understand will be done by the Division of Design and Construction. In addition, the District Securities Commission has requested the addition of one position which should reduce the work done for the commission. To the extent that there still is not sufficient staff available in the department for this activity, it is recommended that there be some consolidation of field inspection work conducted by the department for the District Securities Commission with other inspection work done by the department, especially the supervision of safety of dams, or that such field inspections for the District Securities Commission be eliminated entirely as a low priority item.

Six positions are requested for the inventory of local water supplies. Money for these positions is actually provided under the study by that name in the California Water Development Program and will be discussed there. Twenty-nine new positions are requested to provide staff

Department of Water Resources—Continued

in the Engineering Data and Services Branch. The funds to pay for these positions will come in unknown amounts from various of the special studies and investigations in the California Water Development Program. It is presently impossible to determine where the money is located in the Budget for these positions. We are also unable to relate them to presently authorized strength in terms of total work load. Under such circumstances, it is not possible for this analysis to evaluate these positions. The revisions in organization recommended earlier in this analysis and the revision of support budget recommended for the California Water Development Program would largely eliminate this funding problem in future years.

Special note should be made of the fact that the current year budget for the department contains an Economics Section with 10 authorized positions. This is a field in which the former Division of Water Resources was inadequately staffed. As a result many of its reports did not include economic aspects of project plans. The organization of this section is an important step forward for the department in converting its engineering studies to more complete evaluations of the water problems of California.

A check of the higher grades in the Division of Resources Planning shows a remarkable increase during the current year.

<i>Grade</i>	<i>Fiscal Year 1955-56</i>	<i>Fiscal Year 1957-58</i>
Principal or equivalent.....	2 man-years	10 man-years
Supervising or equivalent.....	2 man-years	23 man-years
Senior or equivalent.....	7 man-years	40 man-years
Other	1 man-year	2 man-years

There are only five positions in the Division of Administration at the senior level or higher, while there are 75 in the Division of Resources Planning. This is further evidence that the department is heavily staffed with high grade engineers and understaffed with administrative and management personnel.

It has been observed that some positions are shown in the Budget at a higher grade than that authorized by the Personnel Board. It has not been possible for this analysis to consider the problems related to grade levels in the new organization and nothing in this analysis should be interpreted by the Personnel Board as an evaluation of the grades involved.

Division of Design and Construction**GENERAL SUMMARY**

The Division of Design and Construction is responsible for design and construction work on the Feather River Project. Other activities of the division covering the operation and maintenance of departmental flood control works and other essentially operating activities will eventually be transferred to a Division of Operations as proposed in the long-range plan for the department's organization. The larger portion of the division's personnel and most of its funds are found under the Feather River Project in the Capital Outlay Section of the Budget.

Department of Water Resources—Continued
ANALYSIS

The two increases in this division under support are both related to flood control. The first increase is for \$290,029 for flood control project maintenance. Twenty-five new positions are requested, along with considerable new equipment. This money is for maintenance of flood control facilities along the Sacramento River and its tributaries which have been constructed by the Corps of Engineers and have been turned over to the department for maintenance. The need for adequate personnel and equipment to do this work is obvious. The question is whether this activity is being conducted on the most economical and efficient basis possible. We feel that any recommendations based upon the limited time now available to evaluate this budget request would be ill advised. It is therefore recommended that this request be allowed. However, it is proposed that the Legislative Auditor will make an investigation of the operations of this activity during the next summer to determine whether improvements and economies are possible.

The second request for increase covers five positions in a new flood forecasting and project control activity. The work proposed for this activity is composed of two parts. The first is the development of flood flow forecasting methodology, forecasting flood flows during periods of flood danger and forecasting flows for operating purposes at Oroville. The second category of work is the determination of flood flows for project design and the design of spillway capacities for both project planning and construction purposes.

Two problems arise in this new activity. The request for personnel to determine flood flows in the Construction Branch for use of the Project Development and Design Branches is illustrative of a tendency within the department to split off important segments of a complete job and to assign them elsewhere in the department in such a manner as to destroy any basic responsibility of one official for the finished product. The responsibility of key officials of the department is confused and dissipated by such techniques. It is recognized that there are arguments for this type of organization and that on the surface it appears to work as long as nothing goes wrong. But when mistakes are made, there is no one to hold responsible and corrective action is difficult to take. The prevalence of this split responsibility, attributable to various reasons in different parts of the department, indicates that the department has not analyzed and established the focal points of control and responsibility in its organization and that insufficient experience has been gained in the past six months to make these focal points evident by trial and error. This analysis recommends that determinations of flood flows be done in project planning and project design and not be separated into a group that will eventually become an operating part of the department.

Department of Water Resources—Continued

The second problem relates to the responsibility of the State to undertake an organized program of flood flow forecasting for operational purposes at this time. The department must operate certain flood control features of the Sacramento Flood Control Project. To do this, it developed forecasting techniques for the Sacramento River several years ago, but these have not been kept current and are in need of substantial work to make them useful under present conditions. This work is considered essential by the department to fulfill its present operating responsibilities on the Sacramento River, to fulfill its disaster responsibilities under Chapter 52, the reorganization bill, to prepare for Oroville project operations, and to provide information requested by Civilian Defense. Although it is essential that the work described above be done, the question is whether this is a state responsibility or a federal responsibility. The only current operating responsibility of the State is for certain features of the Sacramento River Flood Control Project. Construction of the Oroville Dam will add flood control operating responsibility at that project after 1962. However, the only significant flood control storage now operated in California is the responsibility of federal agencies and only orders from federal officials will change the operations of their project. Although there is a close relationship and good cooperation between state and federal officials during emergencies, the real control, and thus the real responsibility, lies in the federal projects and officials. There is now real confusion in law and in fact as to who is actually responsible to act. Over this situation hangs the \$21,000,000 in damage suits filed against the State as a result of the last floods.

It is recommended that the Legislature assure itself that: (1) flood flow forecasting is a responsibility of the State; (2) that the State's responsibility is adequately defined; and (3) that it wishes this work to go ahead in view of its possible effect on the lawsuits pending.

Salaries and wages for San Joaquin River Flood

Control Project (Budget page 967, line 30)----- \$200,000

According to the best information available, the sum of approximately \$200,000 for salaries, wages and operating expenses of the personnel in this division who will work on the State's San Joaquin River Flood Control Project are in the Budget twice, being appropriated once in the support budget of the Division of Design and Construction and once in the allocation from the Flood Control Fund to the Reclamation Board for capital outlay. In addition, since there is no deduction in Fiscal Year 1957-58 for staff time of this division which may work on reimbursable projects financed from other state agency budgets, there is reason to believe that further funds may be budgeted twice. If so, these should be eliminated by the Department of Finance.

The Division of Design and Construction has shown 356 positions under Capital Outlay for work on the Feather River Project, but there is no basis upon which to evaluate the work load or need for these positions.

There are significant indications that the Department of Water Resources may be directed by the Legislature to construct other water

Department of Water Resources—Continued

resources projects. Foremost of these are the Whalerock Project in San Luis Obispo County, which is a small project being undertaken jointly by the City of San Luis Obispo and two state agencies which have facilities in that area. It is entirely possible that these agencies will request the Department of Water Resources to construct this project on a trust fund basis. Indications also point to the department's constructing the five projects in the Upper Feather River Service Area and possibly the North Bay Aqueduct. Such a construction program would substantially alter the present program of the Division of Design and Construction, the full effects of which cannot now be foreseen.

**Department of Water Resources
WATER RESOURCES INVESTIGATIONS**

ITEM 263 of the Budget Bill

Budget page 971
Budget line No. 25

**FOR CONDUCTING WATER RESOURCES INVESTIGATION (CALIFORNIA
WATER DEVELOPMENT PROGRAM) FROM THE GENERAL FUND**

Amount requested	\$2,470,418
Estimated to be expended in 1956-57 Fiscal Year	1,849,850
Increase (33.5 percent)	\$620,568

RECOMMENDATIONS

Amount budgeted	\$2,470,418
Legislative Auditor's recommendation	2,410,418
Reduction	\$60,000

GENERAL SUMMARY

In this year's Budget, the California Water Development Program has been expanded to encompass most of the special studies and investigations of the department previously carried either under special budget items or State-wide Studies and Investigations. Staffing for these studies is shown in the Budget request for the Division of Resources Planning, which conducts most of this work, but the money is provided through this budget item.

During the current year, the State-wide Studies and Investigations has suffered considerably from the time devoted to reorganizations, the shortage of personnel, the diversion of staff to revise the California Water Plan and the diversion of staff to do aqueduct planning work on the Feather River Project. As a result, little more than half of the original work programed for the year will be accomplished. Because there are good reasons for the failure to meet the program proposed for this fiscal year, our major concern has been the fact that there is presently no way to judge what has been accomplished with the funds spent and to determine what work remains undone.

As initially presented last year, the State-wide Studies and Investigations was intended to be a program extending for several years which

Water Resources Investigations—Continued

would establish the next projects to be constructed under the California Water Plan. During the past year this program has been substantially reshaped so that it now has the further purpose to elaborate upon the California Water Plan and to protect and further that plan in all respects. As a result, this work is now one of the main reasons for the existence of the Department of Water Resources. Irrespective of how money for this work may currently show in the Budget document, it is the heart of the California Water Plan in all of its many phases and ramifications.

The present practice of showing the State-wide Studies and Investigations under a budget item separate from the department's support budget is one of the main reasons for the complexity of the department's Budget. For this reason, we have considered the advisability of transferring certain continuing features of the California Water Development Program to departmental support. However, in order to do this it is necessary to develop a program statement which will facilitate control and understanding of this work between the Legislature and the department. This we feel the department has done by outlining the types of investigations it proposes to make, by showing the scope, contents and purposes of these investigations, and finally by relating these investigations to the California Water Plan and the policy of the department in furtherance of that plan. The following material sets forth these matters and is adapted directly from a letter of January 23, 1957, from the Department of Water Resources.

The types of investigations, studies and reports of California water problems which the Department of Water Resources proposes to make in furtherance of the California Water Plan and in studies of all other water problems of the State may generally be divided into three broad categories as follows:

Category 1. An investigation of this type is primarily an office study to determine whether further investigation and expenditure of funds for more detailed investigations is warranted. The investigation is supported by cursory field examination. The report of the investigation would briefly set forth the readily available data concerning the water resources of the area; the general areal and surface geologic conditions to be encountered in the area; the classification of lands and their utilization in order to establish water requirements of either the local area or area of export; preliminary definition of the apparent water problems; and finally, available information on projects which may possibly be constructed. Example: Preliminary examination reports of the State Water Resources Board.

Category 2. An investigation of this type would determine engineering feasibility. A preliminary project design of structures would be prepared sufficient to permit estimating costs. Extensive field activities would be carried out, including topographic mapping; land classification; water use surveys; and collection and study of stream flow, ground water, and other hydrologic data. Also included would be studies of multipurpose reservoir operations, delivery of water to areas

Water Resources Investigations—Continued

to be served, and consideration of existing uses of water. In general, geologic examination would be surficial, but a moderate amount of drilling might be included of proposed dam sites, conduit routes and other works. Economic studies would be preliminary in nature but sufficient to enable selection of the best project and to indicate whether further and more detailed study is warranted. Need for the project would be indicated. The report would include consideration of recreation, fish and wildlife, flood control, salinity control, water supplies developed, energy generation and other pertinent items. The report would indicate the possible nature and extent of a state-wide interest in the project, but would not include recommendations for authorization for construction. The primary purpose of a Category 2 report would be to serve as a guide for the State and other interested parties in deciding upon further steps to be taken in the development of the water resources involved. To that end the report would set forth sufficient information to enable the State or any other agency to continue studies to determine economic and financial feasibility of the project. Example: Best example to date is the American River Basin Investigation.

Category 3. This type of investigation establishes engineering, economic and financial feasibility of a proposed project with a view to authorizing the project for construction. The investigation would include definitive design of all important structures to accurately determine construction costs; definite delineation of areas to be served with studies of their ability to receive, distribute and pay for the water; cost-benefit analyses; cost allocations and repayment plans; detailed delineation of necessary lands, easements and rights of way, including the relocation of roads and utilities; and economic and financial feasibility studies. Example: Proposed report on the Upper Feather River Investigation.

In addition, certain information reports will be issued consisting of assemblages of data of general value and use. It may be noted that under the above system, the 1955 report on the Feather River Project was not a complete Category 3 report. Information lacking for this report is being prepared at the present time. While it is anticipated that the reports of the department in the future can be generally categorized as above, many in the past, and perhaps some in the future, occupy an intermediate position as prescribed by the legislation which directed the study.

The present procedures of the department for the economic evaluation of projects are generally similar to those followed by the Federal Government as set forth in the "Views of the California State Department of Water Resources on U. S. Senate Resolution No. 281, 84th Congress." The department is conducting further extensive study of economic policies proposed to be utilized for the State of California and will submit such proposed policies to the Legislature for such action as it may determine.

**Water Resources Investigations—Continued
ANALYSIS**

Our review of the department's Budget has convinced us that the above concept of studies and investigations is vital to legislative direction of the department's program. For example, when applied to the proposed program of investigations contained in the California Water Development Program, it shows that the department has proposed the following investigations:

<i>Project</i>	<i>Category</i>	<i>Source of funds</i>	<i>Completion date</i>
Stanislaus River Basin -----	2	State-wide	
Mokelumne River Basin -----	2	State-wide	
Chowchilla and Fresno River Basins---	2	State-wide	
Upper Feather River Investigations---	3	Special app.	June, 1958
Salinity Control Barrier Investigation---	3	Special app.	June, 1959
San Joaquin Valley Drainage Investigation -----	3	Special app.	June, 1961
Allen Camp and Round Valley Investigation -----	3	Special app.	
Lassen and Modoc County Ground Water Investigation -----	Information	Special app.	
Shasta County Cooperative Investigation -----	2	Cooperative	
San Diego Cooperative Investigation---	2	Cooperative	
Tulare Lake Basin Investigation-----	2	State-wide	
North Coastal Project Investigation---	2	State-wide	
North Coastal Project Investigation---	3	State-wide	1961
Sacramento Valley Project Investigation -----	2	State-wide	
Sacramento Valley Project Investigation -----	3	State-wide	1961

Our interpretation of the above program of project investigations is that the Stanislaus, Mokelumne, Chowchilla and Fresno River Basin investigations and the North Coastal Project and Sacramento Valley Project investigations are in furtherance of the California Water Plan. These investigations develop the plan to such a point, as stated under the definition of Category 2, that information will be available to show the engineering feasibility of multiple-purpose projects which will fully develop the potential of the basin. This information will permit the State or any other agency to further investigate the project on the basis of the purposes and benefits outlined in the department's Category 2 report, to determine its economic and financial feasibility and whether further study is warranted for authorization of the project for construction. This is the fulfillment of the California Water Plan, which as it stands to day, does not include completed Category 2 studies of all watersheds and projects in the State. It appears to be a logical extension of the intent of the Legislature in initiating work on the California Water Plan and in authorizing the state-wide studies and investigations last year. With this program description we feel that the Legislature has full control of the department's Category 2 investigations and that funds for this work, which is of a continuing nature should be transferred into the department's support budget.

On the basis of the above system of categories, it appears logical that Category 3 studies and investigations would be made only when the

Water Resources Investigations—Continued

Legislature is considering state construction of a project, or when the Legislature determines that the State should prepare a Category 3 study at state expense in behalf of a third party or when a cooperative investigation is proposed by some other agency. By definition, Category 3 investigations are for the purpose of deciding upon the authorization of a project. Therefore, following legislative study of a Category 3 report and the decision to authorize the project, the next step would be the appropriation of construction money. In considering the time relationship of the three categories of reports, it should be noted that several years or even decades may elapse between the three categories of project planning reports represented by the system, and that many years may elapse between a Category 3 report and actual construction of the project, depending upon need for the project and market conditions.

(a) State-wide Studies and Investigations. The department is investigating a plan whereby 2 or 3 million acre-feet of water would be developed in the North Coastal Area for export to the Sacramento Valley and then conveyed to areas of deficiency. The work during the current fiscal year is essentially devoted to a thorough review and analysis of all the data assembled for the preparation of Bulletin No. 3. Following this review, a preliminary selection of the most favorable plan in the North Coastal Area will be made. This selection will involve cost comparisons for alternative plans, consideration of information to be gained from the \$250,000 foundation exploration program now in progress, studies of routes for conveyance of water to the Sacramento Valley, possibilities for hydroelectric generation, estimates of possible flood control benefits and effects on fish and wild life. Following the selection of the most favorable plan, a detailed investigation of that plan will be undertaken. This will involve complete planning, justification, and determination of feasibility of the selected project. The resulting Category 3 report will be in such form and detail to permit proceeding with necessary studies leading to the preparation of construction plans and specifications upon authorization by the Legislature.

A similar study is being pursued on streams in the Sacramento Basin. Upon the completion of both of these planning studies, the Department of Water Resources will be in a position to recommend to the Legislature a project which will constitute the second major water development unit in the interbasin transfer provided for by the California Aqueduct System of the California Water Plan. It is anticipated that five to six years will be necessary to complete these investigations.

While it is apparent that these studies will probably result in showing the eventual need for the construction of a state project and that therefore, a Category 3 study is in order for future work of the department, it is not clear to us now that the economics of transmountain diversions of water from the north coastal area warrant immediate consideration of a Category 3 study for such a project when substantial additional sources of water can be developed within the Sacramento

Water Resources Investigations—Continued

River Basin. It is our recommendation that more consideration be given to the need to schedule at this time a Category 3 study of a project in the north coastal area.

Other investigations under the state-wide studies and investigations are listed in the table above.

(b) San Joaquin Valley Drainage Study. The \$104,240 requested is for the first year's work on an investigation scheduled to last four years and cost an estimated \$600,000. The San Joaquin Valley already faces loss of important productive low lands in western Merced County because of rising ground water tables and surface collections of mineralized irrigation drainage water. In addition, the return of irrigation drainage waters to the lower San Joaquin River is deteriorating that water to a point where it is becoming unusable for irrigation. With the initiation of the Feather River Project, irrigation drainage water will increase in both quantity and detrimental mineral content to the point where it must be removed or it will destroy the agriculture of valuable areas of the San Joaquin Valley. This study is to develop means, in coordination with local irrigation and drainage interests, to handle the return irrigation drainage flows. The project is of state-wide interest since it is directly related to the Feather River Project, covers the length of the San Joaquin River Valley, and is beyond the capacity of local agencies. The same problem is expected to occur eventually in the Sacramento River Valley. Approval is recommended.

(c) Northeastern Counties Ground Water Investigations. The objective of this investigation is to determine the amounts and location of the various bodies of underground water occurring in 10 Lassen and Modoc County valleys and to propose operating methods by which the residents in those areas may secure the greatest benefit from the available supplies. The department considers ground water studies inseparable from other water studies, and indicates that any project investigation may or may not involve studies of the possible operation of ground water storage. Ground water studies are frequently of more direct benefit to a limited number of local inhabitants than are basin or project studies. There is a precedent for such studies in past appropriations of the Legislature, such as the investigation of control and prevention of sea water intrusion in the west coastal basin of Los Angeles County. We have no information on the possible benefits from this study, which will cost \$75,490 for the first year and will run three years at a total cost of \$240,000, nor do we know whether the results will warrant the total costs of the work.

(d) Inventory of Water Supplies by Areas. Chapter 61, Statutes of 1956 (the Regan Bill) initiated a program for detailed studies of various watersheds with the principal objective of determining how much water might be available for export after the local needs are taken care of. To accomplish this, the department proposes to subdivide mountain watersheds into somewhat smaller units than used in previous investigations. As a result, additional gaging stations will be required and almost half of next year's appropriation will be for that purpose. The determination of the ultimate water requirements for the areas of

Water Resources Investigations—Continued

origin will entail land-use and capability surveys to determine the water required to adequately supply the projected future land uses. Such studies under this investigation will be coordinated with previous surveys made for other investigations, and therefore, the department anticipates no duplication of work. During this year, work has started in the Trinity, Yuba-Bear, and Tule River watersheds. In Fiscal Year 1957-58, it is planned to initiate investigations in the Eel, Russian, and Klamath watersheds.

The department is proposing a change in the terms of Chapter 61 to allow an inventory of present water uses and to determine, insofar as possible, a claim of right under which these water uses are being made. It is proposed that ditches being used for diversion of water for any purpose would be located upon maps, and the owners of the same would be interviewed to determine the right upon which they base their use of water. Present uses of water would be measured for at least one season, or for an entire year, if the uses warrant. An average of three years' measurements will be required for each watershed to permit developing reliable data.

This analysis invites the attention of the Legislature to the fact that there is no limit to the work which might be undertaken to secure increasingly reliable data on uses of water, availability of water, and forecasting of amounts remaining for export to areas of deficiency. Nor is there any limit on the detail and accuracy with which data on rights to water may be assembled. When all this data has been assembled, it will lose considerable value unless kept reasonably current. Under such circumstances the Legislature may wish to redefine or limit this undertaking so that its scope and costs will not become excessive.

In the preparation of this analysis, it has not been possible to determine whether the watersheds in which studies and measurements are now being made or proposed for next year are priority watersheds, that is, that there is need to undertake this work now in anticipation of project construction which will actually require a determination of amounts of water available for export. It seems reasonable that any studies made at this time will not be acceptable to the areas of origin 10, 20, or 30 years from now at which time the actual construction of a project may be authorized. In short, there may be considerable differences in priority of this work from one watershed to another, and considering the present shortage of technical personnel, some of this work may be deferrable.

Because this is a long-range program which is important to the California Water Plan and to the basic data gathering program of the department, it is recommended that this work be transferred to the department's support budget.

(e) Upper Pit River Investigation. This item proposes \$65,299 for a Category 3 investigation of reservoirs at the Allen Camp site on the Pit River and at the Round Valley site on a tributary of Ash Creek. These projects would conserve and store water for irrigation in Big

Water Resources Investigations—Continued

Valley in the vicinity of Bieber, develop a recreational area and provide for the maintenance of fish and wildlife.

It is reliably understood that these projects may be considered for construction under the terms of the Small Reclamation Projects Act, P. L. 984, passed by the last session of Congress. This act authorizes the Secretary of Interior to provide a grant for the nonreimbursable costs of projects qualifying under the act and to loan the costs of reimbursable investments, except that local beneficiaries shall provide lands and water rights up to 25 percent of the loan. It has recently been proposed that the State pay the costs of lands required for local projects. If, in addition, the State should plan the project, virtually no investment costs would remain for the project beneficiaries as a result of the joint effect of state and federal policies.

Under the proposed category system of project investigations outlined above, the State would fulfill its obligation under the California Water Plan by completing a Category 2 report instead of a Category 3 report. If it is the wish of the Legislature to authorize a Category 3 investigation for these projects, it is suggested that the Legislature consider treating the additional costs of a Category 3 report over a Category 2 report as a state loan in somewhat the same manner as provided by Congress in Section 7 of P. L. 984. This section provides for repayment by project beneficiaries of the costs of Bureau of Reclamation plans and data by authorizing these costs to be added to the loan. Legislative consideration of this policy problem appears desirable.

Sacramento River and Delta trial distribution

(Budget page 970, line 38)----- \$60,000

(f) Trial Distributions. This request covers the costs of three trial distributions, the Sacramento River and Delta, the lower Feather River and the lower American River. The latter two trial distributions were initiated in the last budget. A complete breakdown of costs for this work was not available before printing this analysis. On the basis of available information, it is tentatively recommended that approximately \$60,000 be removed from this item. The Feather and American Rivers trial distributions can be expected to continue at approximately the level of \$33,000 provided for the current year. However, the work on the Sacramento River and Delta trial distribution is drawing to a close with all the field studies and collection of data completed. There remains the analysis and publication of data gathered this last summer and the continued negotiation of a stipulated agreement based on three years trial distributions. It is also necessary to provide funds for continuity in the measurement of diversions up to the time of establishing an anticipated watermaster service for this area, and a contingency for analysis of any special problems which may arise during negotiations. It appears that the request contains too large a reserve for contingencies. *It is tentatively recommended that only \$138,775 be allowed and that work on the Sacramento River and Delta trial distribution be pushed to a speedy conclusion.*

Water Resources Investigations—Continued

(g) Salinity Control Barriers Study. The original investigation of the Bay Barriers was authorized by Chapter 1104, Statutes of 1953 and resulted in a report entitled "Feasibility of Construction of Barriers in the San Francisco Bay System." This Category 2 report discussed the engineering possibilities and detriments connected with proposals for the construction of salt-water barriers at various points between Candlestick Point and Chipps Island, together with the proposed Biemond concept of barriers in the Delta channels. As a result of this report, the Legislature directed further investigation of the Chipps Island and Biemond Plans by Chapter 1434, Statutes of 1955. The department is presently completing an interim report, which will be transmitted to the Legislature in March. This interim report will discuss and recommend one plan for barriers in the Delta system for further intensive investigation. It will also constitute a Category 3 report for the portion of the investigation covering the North Bay Aqueduct. It is anticipated that the North Bay Aqueduct will be recommended for authorization as a unit to be included in the California Water Plan. During the next two years of this investigation, further detailed design and cost estimating studies are proposed with regard to the barrier plan, and a Category 3 report on the Salinity Control Barrier Project will be submitted to the Legislature in 1959.

This analysis views this investigation as one of the highest priority investigations of the department because improvement of conditions at the Delta is essential to all future transfers of water through that area. Approval of the request is recommended.

(h) Upper Feather River Service Area Study. This investigation is a continuation of one initiated in July, 1956, for which \$385,000 was appropriated by Budget Item 223.1, Budget Act of 1956, and the report on which will be released in March. Thirty-nine thousand thirty dollars is requested to complete Category 3 studies and make recommendations for a construction program for the Upper Feather River Service area. Included in the uncompleted work is the investigation of two power projects on Union Creek and one on the Middle Fork of the Feather River; irrigation development for Sierra County; multiple purpose projects on the west branch of the North Fork Feather River and the South Fork Feather River; and the evaluation of costs and accomplishments of the comprehensive power development on the Middle Fork Feather River. The Budget Act of 1956 provided \$273,000 for the acquisition of reservoir sites for the five projects investigated during the current year.

It has been observed that in the current year's work on the Upper Feather River Service Area Investigation, some funds were expended in a contract with a consulting firm which duplicated planning work for recreational facilities which work was the responsibility of the Division of Beaches and Parks. It is recommended that the Department of Water Resources in all future investigations limit its work on recreational aspects of projects to consideration of flows, storage of water and its resultant effect on dam and reservoir design and on project economic feasibility. All studies of actual recreational facilities required to make

Water Resources Investigations—Continued

the project useable for recreational purposes should be left to the Division of Beaches and Parks.

Based on the category system of project investigations proposed by the Department of Water Resources and previously presented in this analysis, justification has not been presented for the need at this time to conduct Category 3 investigations instead of Category 2 investigations. There are many projects involved in this investigation, some of which will not be constructed for many years or even decades, since the construction of all these projects would approximate the ultimate development of the water resources of the Upper Feather River Basin. It is recommended that only Category 2 investigations be undertaken at this time, unless there are certain projects which the Legislature wishes to consider for Category 3 investigations in anticipation of imminent construction.

(i) Northeastern Counties Investigation. An amount of \$10,000 is requested to complete and publish an information report on the ultimate water requirements of the northeastern counties exclusive of the Upper Feather River Service area. Approval is recommended.

Summary of Recommendations. It is recommended that subitems (a) state-wide studies and investigations and (d) inventory of water supplies by areas be transferred to subitems (a) and (b) of Budget Item 262. It is also recommended that \$60,000 be removed from subitem (f) and such other amounts as the Department of Water Resources may determine for any investigations in subitems (e) and (h) which the Legislature may determine to be reduced from Category 3 to Category 2 investigations.

Department of Water Resources**WORK IN COOPERATION WITH THE FEDERAL GOVERNMENT**

ITEM 264 of the Budget Bill

Budget page 972

Budget line No. 80

**FOR WORK IN COOPERATION WITH THE FEDERAL GOVERNMENT
FROM THE GENERAL FUND**

Amount requested	\$869,405
Estimated to be expended in 1956-57 Fiscal Year	754,050
Increase (15.3 percent)	\$115,355

RECOMMENDATIONS

Amount budgeted	\$869,405
Legislative Auditor's recommendation	869,405
Reduction	None

This budget item contains all funds expended by the Department of Water Resources for work in cooperation with various agencies of the United States Government. Funds for the following purposes are being requested:

- (a) Yuba River Debris Control. The Yuba River debris control works was one of the earliest water resources projects of either

Work in Cooperation With Federal Government—Continued

the Federal or State Governments in California. The works prevent mining debris from passing into the Feather and Sacramento Rivers. Customarily the State has contributed \$15,000 annually to the maintenance of these works. Last session an additional \$100,000 was made available for flood damage repairs. The request for \$100,000 this year is for further restoration work in cooperation with the Corps of Engineers. Approval is recommended.

- (b) **Topographic Mapping.** This is a continuing cooperative program with the U. S. Geological Survey for topographic mapping of the State. The level of work will remain the same. It is recommended that the request for \$314,380 be approved.
- (c) **Stream Gaging.** Comment has already been made under the analysis of the Division of Resources Planning that the comprehensive report on basic data gathering which was promised to be prepared by the department has not been completed in time to be used in the analysis of this budget. This subitem contains a request for an increase this year of almost \$30,000. We have no method of evaluating this request. This expenditure is for a joint undertaking with the United States Government.
- (d) **Irrigation Investigations.** The request for \$15,830 provides for the continuation of a joint study with the Soil Conservation Service, U. S. Department of Agriculture of factors that dissipate the natural water supply; studies of the consumptive use of water by various crops, of the contribution of rainfall to irrigated crops in California, of conservation of water by artificial recharge of underground basins, and studies of drainage of irrigated and other wet lands. Approval is recommended.
- (e) **Establishment of Gaging Stations.** This item is related to basic gathering in the same manner as (c) above. It is also a cooperative undertaking with the Federal Government. The increase is almost \$27,000.
- (f) **Ground Water Basins and Subsidence Studies.** An increase of \$30,000 is requested for a total of \$91,045 for this cooperative project with the U. S. Geological Survey. Its purpose is a study of the geology and hydrology of ground water basins in the southern part of the San Joaquin Valley, studies of subsidence in the San Joaquin Valley to ascertain the cause; and observation well measurements in the desert areas. Approval is recommended.
- (g) **Ultrasonic Stream Measuring Station.** \$25,000 is requested for a cooperative study with the U. S. Geological Survey of a pilot model ultrasonic stream flow and current velocity measuring station. It is felt that this new type measuring device has a potential which should be explored and developed for use at the Delta and elsewhere. Approval is recommended.

Work in Cooperation With Federal Government—Continued

- (h) Specific Yield Studies. This is a new project for which \$13,100 is being requested. Its purpose is to refine estimates of the storage capacity of ground water basins and to provide more accurate estimates of recoverable water from cyclic ground water storage. Approval is recommended.
- (i) Beach Erosion Investigations. A new contract with the Corps of Engineers provides for a three- to five-year cooperative study of beach erosion problems from Santa Barbara to the Mexican border. As in the previous contract, the Corps of Engineers pays one-half the costs, while the State and the local counties split the remaining half. Approval of \$7,500 is recommended.
- (j) Research in Snow Pack Management. This is the second year of a new cooperative project with the U. S. Forest Service which first appeared in the budget last year. Its purpose is to seek means of prolonging the melting of the mountain snow pack. The request for \$60,000 is recommended for approval.

Department of Water Resources
LOCAL COOPERATIVE INVESTIGATIONS

ITEM 265 of the Budget Bill

Budget page 954
 Budget line No. 8

**FOR LOCAL COOPERATIVE INVESTIGATIONS ON WATER RESOURCES
 FROM THE GENERAL FUND**

Amount requested	\$33,250
Estimated to be expended in 1956-57 Fiscal Year	60,350
Decrease (44.9 percent)	\$27,100

RECOMMENDATIONS

Amount budgeted	\$33,250
Legislative Auditor's recommendation	33,250
Reduction	None

The local cooperative investigations with the Counties of Shasta and Monterey and an investigation with the City of San Diego are continuations of existing studies. The cooperative study with San Joaquin County is new. These four studies are the remnants of what originally was a somewhat larger program for the sharing of costs of local investigations. At the present time, most studies are being financed exclusively by the State. Approval is recommended.

Colorado River Board—Continued
GENERAL SUMMARY

The Colorado River Board was created under Chapter 838, Statutes of 1937, for the purpose of protecting California's rights to Colorado River water. The board and its staff collects, compiles, and analyzes engineering and legal data on utilization of the waters of the Colorado River System within and without the State; appears before congressional committees and interested federal agencies; and confers with representatives of other Colorado River Basin states regarding legislation and developments affecting California's rights and interests. At present the board is deeply involved in the representation of California before the U. S. Supreme Court in the case of *Arizona v. California*.

Table of Increases 1947-48 to 1956-57

	1947-48	1956-57	Percent increase
Number of positions -----	7.8	21.5	175.6
Expenditures -----	\$63,426	\$290,468	357.96

No work indexes are available for the board's work. The major increase results from the Colorado River litigation.

ANALYSIS

The proposed 1957-58 budget request of \$276,901 is \$19,789 less than the planned expenditures for the current year. However, this is actually substantially larger than the amount appropriated last year because of program adjustments in the current year budget made by the Department of Finance and the request for a fiscal year deficiency appropriation of \$46,768. The board has indicated that the major portion of the deficiency request is to cover costs for additional engineering consulting services required by the developments in *Arizona v. California* litigation. The decrease in the budget year results from an anticipation of less need for such services during the next fiscal year. In any event no new positions are involved in these budget revisions.

In Fiscal Year 1954-55 the board expended \$160,000 but was unable to expend \$26,000 of its available funds. In Fiscal Year 1955-56 it was unable to expend \$30,000. In spite of this record, in both Fiscal Years 1955-56 and 1956-57 the board has requested program revisions and increases in the middle of those fiscal years and these increases have been approved by the Department of Finance. It is difficult to anticipate the requirements of litigation in the case of *Arizona v. California* and some flexibility must be provided to the board. There is no indication that the surplus funds have resulted in overexpenditures, but it does appear that a much tighter budget would be desirable.

During the next fiscal year the full impact of *Arizona v. California* should be apparent insofar as its special requirements on the board are concerned. It is, therefore, recommended that the board make a thorough review of its activities and fiscal needs during the preparation of the 1958-59 budget. In view of the 100 percent increase which has occurred in the board's requirements since Fiscal Year 1954-55, most of which is a reflection of the case of *Arizona v. California*, which will reach its peak this year, the next fiscal year is an appropriate time to

Colorado River Board—Continued

consider the new program level which should be planned for the board in future years. Particular attention should be given to the nature, scope and justification for continuing activities of the board's staff in collecting economic, engineering and agricultural data on the Colorado River area, the extent of the analysis required of proposed federal construction plans, and similar activities of the board's staff. It is recommended that the board's budget justification be specific in detailing and justifying all its activities both quantitatively and qualitatively.

Approval of the request is recommended.

CALIFORNIA KLAMATH RIVER COMMISSION

ITEM 269 of the Budget Bill

Budget page 980

Budget line No. 7

**FOR SUPPORT OF CALIFORNIA KLAMATH RIVER COMMISSION
FROM THE GENERAL FUND**

Amount requested	\$45,485
Estimated to be expended in 1956-57 Fiscal Year	59,871
Decrease (24.0 percent)	\$14,386

Summary of Increase

	Total increase	INCREASE DUE TO		Budget Line page No.
		Work load or salary adjustments	New services	
Operating expense	—\$14,521	—\$14,521	--	980 46
Equipment	135	135	--	980 49
Total increase	—\$14,386	—\$14,386	--	980 51

RECOMMENDATIONS

Amount budgeted	\$45,485
Legislative Auditor's recommendation	45,485
Reduction	None

GENERAL SUMMARY

The Klamath River Commission was created by Chapter 1473, Statutes of 1953, to cooperate with a similar commission representing the State of Oregon in formulating and submitting to the legislatures of both states and Congress an interstate compact covering the distribution and uses of the waters of the Klamath River.

ANALYSIS

The commission began its work in May, 1954. In the intervening period, staff reports on water supply, water utilization and on geologic exploration of reservoir sites have been completed. A draft of the proposed compact has been agreed upon by the California and Oregon commissions and was signed in November. It is now ready for submission to the Oregon and California State Legislatures and Congress.

California Klamath River Commission—Continued

The work remaining for the commission can be stated as follows: (1) keeping up to date certain records which the commission has established on water rights, flows, etc.; (2) conducting any new or additional investigations to resolve presently unforeseen problems; (3) revising or elaborating on any technical data or studies now available in order to answer questions; (4) attending to the details involved in securing approval of the compact and presenting the compact to the California Legislature and Congress.

It is anticipated that much of the \$45,485 requested for Fiscal Year 1957-58 is in the nature of a contingency appropriation. If events associated with approval of the compact transpire with unusual smoothness and speed, most of the money may not be needed. It is possible, also, that most of the money may be required to resolve unforeseen problems. In view of the uncertainty of the commission's fiscal needs, it is recommended that the entire amount be appropriated subject to the following appropriation language, "No amount of this appropriation may be expended for any purpose which is not directly related to the signing or furthering the signing of the compact." This will prevent the expenditure of any remaining portion of the appropriation for additional studies or explorations which are not needed to achieve agreement between Oregon and California on the compact.

CALIFORNIA-NEVADA INTERSTATE COMPACT COMMISSION

ITEM 270 of the Budget Bill

Budget page 981
Budget line No. 7

FOR SUPPORT OF CALIFORNIA-NEVADA INTERSTATE COMPACT COMMISSION FROM THE GENERAL FUND

Amount requested	\$87,327
Estimated to be expended in 1956-57 Fiscal Year	79,842
Increase (9.4 percent)	\$7,485

RECOMMENDATIONS

Amount budgeted	\$87,327
Legislative Auditor's recommendation	87,327
Reduction	None

GENERAL SUMMARY

The California-Nevada Interstate Compact Commission was established by Chapter 1810, Statutes of 1955. This chapter also appropriated \$50,000 for the use of the commission. Because this special appropriation will be expended during the current year, the budget for the Fiscal Year 1957-58 contemplates appropriations from the General Fund for the commission's work.

The commission is directed to cooperate with a similar commission representing Nevada in negotiating an interstate compact covering the distribution and use of the waters of Lake Tahoe, and the Truckee, Carson and Walker Rivers. The commission began its work in November of 1955. During the 1956 calendar year a series of meetings have been held with the Nevada commission.

California-Nevada Interstate Compact Commission—Continued

ANALYSIS

The commission has established a program which is designed to develop answers and eventual agreement with its Nevada counterpart on a number of very complex problems. Included among these is the negotiation of settlements in several water rights court cases; determining the amount of water originating in California which is available for proposed projects; generally determining the future water needs of California from the subject rivers; studying problems of pollution, fisheries, wildlife and recreation at Lake Tahoe and along the subject rivers; and studying the problems of maintaining the elevation of Lake Tahoe.

The basic field work for the commission's investigations has been generally completed this past summer. The compilation of the data and preparation of the necessary reports will be completed by next fall. The West Walker River Investigation of the Department of Water Resources, which is a companion study of importance to the work of the commission will be completed in June, 1957. Thus, next fall should see the completion of all the basic investigations and reports required for the commission's activities, after which the preparation of the compact document will remain. The increase of \$7,485 in the budget year request over the current year request is primarily to publish the results of the commission's investigations. Approval of the request for \$87,327 is recommended.

RECLAMATION BOARD

ITEM 271 of the Budget Bill

Budget page 976

Budget line No. 7

FOR SUPPORT OF RECLAMATION BOARD FROM THE GENERAL FUND

Amount requested	\$248,810
Estimated to be expended in 1956-57 Fiscal Year	218,303
Increase (14.0 percent)	\$30,507

Summary of Increase

	Total increase	INCREASE DUE TO		Budget Line page No.
		Work load or salary adjustments	New services	
Salaries and wages	\$22,819	\$22,819	--	977 17
Operating expense	4,998	4,998	--	977 39
Equipment	6,266	6,266	--	977 48
Less increased reimbursements ..	—3,576	—3,576	--	977 53
Total increase	\$30,507	\$30,507	--	977 55

RECOMMENDATIONS

Amount budgeted	\$248,810
Legislative Auditor's recommendation	248,810
Reduction	None

Reclamation Board—Continued

GENERAL SUMMARY

The Reclamation Board cooperates with the U. S. Corps of Engineers in the construction of flood control projects by the acquisition of rights of way for such projects; acts as the governing body for the Sacramento and San Joaquin Drainage District; issues permits for local construction or impairment of levee systems and flood channels; fulfills such construction obligations as have been assumed by the State in its agreement with the Federal Government; and is responsible for the construction of the San Joaquin River Project.

Table of Increases, 1947-48 to 1956-57

	1947-48	1956-57	Percent increase
Work Index:			
Expenditures, Flood Control Fund of 1946__	\$70,000	\$2,500,000	3,471.4
Number of positions -----	23.9	37.5	56.9
Total Expenditures (Administration) -----	\$132,636	\$288,761	117.7

ANALYSIS

The support budget of the Reclamation Board contains an increase of \$30,507 over the estimated expenditures for the current year, plus an increased reimbursement of \$3,576, making a total increase of \$34,083. This increase is for three new positions: a property appraiser and negotiator, a junior drafting aid, and a junior civil engineer plus some additional seasonal help. New equipment is required for these positions. It is also anticipated that acquisition of rights of way for projects in Lake County and along the upper San Joaquin River will involve additional travel expense.

The current year's budget provided for two new positions intended to clean up certain backlogs in the Board's work. The regular flow of the Board's work was interrupted as a result of the floods of December, 1955. The Corps of Engineers has spent \$9,500,000 for emergency repair of levees and other flood control facilities during the past year. These repair activities have required the Reclamation Board to provide the necessary rights-of-way for levee setbacks, barrow pits, etc. As a result, no appreciable progress has been made on the Board's backlog. During the next year, both the federal and state flood control programs are anticipated to be larger than during the current year (see Flood Control Fund of 1946, Local Subventions). The increase of three positions appears to be justified by workload increases.

Approval of the request is recommended.

WATER POLLUTION CONTROL BOARD

ITEM 272 of the Budget Bill

Budget page 982

Budget line No. 25

FOR SUPPORT OF WATER POLLUTION CONTROL BOARD FROM
THE GENERAL FUND

Amount requested -----	\$633,236
Estimated to be expended in 1956-57 Fiscal Year -----	624,523
Increase (1.4 percent) -----	\$8,713

Water Pollution Control Board—Continued

Summary of Increase

	Total increase	INCREASE DUE TO		Budget Line page No.
		Work load or salary adjustments	New services	
Salaries and wages -----	\$40,524	--	\$40,524	985 35
Operating expense -----	220,912	--	220,912	985 36
Equipment -----	-2,358	-2,358	--	985 37
Plus decrease in contribution from Fish & Game Preservation Fund -----	8,313	8,313	--	982 16
Less increase in federal contribution -----	-258,678	--	-258,678	982 17
Net increase -----	\$8,713	\$5,955	\$2,758	

RECOMMENDATIONS

Amount budgeted -----	\$633,236
Legislative Auditor's recommendation -----	633,236
Reduction -----	None

GENERAL SUMMARY

The State Water Pollution Control Board formulates statewide policy for the control of water pollution; gathers, compiles, and disseminates data; and administers a program of financial assistance for water pollution control. The board consists of the following membership: The directors of the Departments of Public Health, Agriculture, Fish and Game, Natural Resources and Water Resources, and nine appointees representative of the regions of the State and of various interests concerned with water pollution problems.

The State is divided into nine water pollution control regions which were established by the basic legislation. The governing policy-forming board of each region consists of five members appointed from within the region by the Governor. These boards coordinate programs of abatement and prevention of water pollution within their areas, recommend projects for financial assistance, and prescribe waste discharge requirements.

In previous years the budget for the board has been presented in three budget items. This year all costs of the State Board and the nine regional boards are consolidated into one budget item.

ANALYSIS

The proposed appropriation of the Water Pollution Control Board for Fiscal Year 1957-58 is \$633,236, an increase of \$8,713 over the amount appropriated last year. The actual expenditures are anticipated to be \$1,002,547, or an increase of \$262,470 over last year, resulting from an anticipated grant of \$339,808 in federal funds during Fiscal Year 1957-58. In addition the State and Regional Boards will have to administer during this calendar year a federal grant of \$2,050,000 provided under terms of Public Law 660, 84th Congress, for assistance to local areas in the construction of sewage treatment and disposal facilities. It is apparent that the scope and importance of water pollution control activities is increasing substantially.

Water Pollution Control Board—Continued

Although the state appropriation for next year is not significantly larger than for the current year, there are increases and decreases in the request which tend to cancel each other out. The principal increase is for six water pollution control engineers and one clerk for the regional offices to initiate a formal monitoring program. During the initial years of operation, the regional boards largely investigated and prescribed requirements for waste discharges with only limited monitoring being done. It is now proposed to police and check these waste discharges to assure that the regional board's requirements are being met. It is planned that more than 1,000 discharges will be checked by the board's staff or by other state, federal and local agencies or by the waste dischargers themselves. While the Water Code does not explicitly authorize a monitoring program, it clearly assumes that information of a type which can only be gathered from a monitoring program will be available to the regional boards for their enforcement activities. The impetus to undertake this monitoring program resulted from the problems with the Hyperion Outfall at Los Angeles.

The board's research in technical phases of water pollution control is a basic research program. It is designed to provide technical data which will assist the regional boards in executing their responsibilities by providing them with the information needed to judge the appropriateness of waste discharge requirements which they set. Submarine outfall research will constitute the major portion of the agency's research work next year. It is proposed that a submarine outfall research program of \$418,808 be undertaken. Of this amount the State would contribute \$79,000 through this appropriation, the Federal Government would contribute \$75,130 through Public Law 660 and finally it is hoped that other federal funds totaling \$264,678 will be made available. In the event that the federal funds are not available it is clearly understood that the State will not be expected to finance an expanded portion of the research program.

The submarine outfall research is anticipated to be a five-year program costing \$2,000,000. The state board contracted with Dr. Erman Pearson for a report on the efficacy of submarine outfalls for sewage. This report was received in December, 1955, and was circulated to interested groups for comment on the research recommended in the report. As a result of these comments the state board has developed the proposed submarine outfall research program with the Allan Hancock Foundation for Marine Research of the University of Southern California. The research program proposes that the Hancock Foundation conduct an oceanographic survey to determine the natural environmental characteristics of the continental shelf areas of southern California from Pt. Conception, just west of Santa Barbara to the Mexican border. In the vicinity of existing outfalls the Hancock Foundation will gather data to reveal the environmental changes resulting from existing waste discharges.

California already discharges over 66 percent of its sewage and industrial wastes in bay or ocean waters through more than 125 outfalls. It is important, therefore, to understand the effect of these discharges

Water Pollution Control Board—Continued

on the salt waters of the State. Because this work is also valuable to other states and the Federal Government, the state board has proposed that a large part of its costs should be borne by the Federal Government.

Field and laboratory services performed by other agencies show a sharp drop next year because of the completion of the San Joaquin Valley oil field studies. In August, 1956, the Department of Finance provided an emergency augmentation of \$18,750 to finance a monitoring program in Santa Monica Bay which resulted from the Hyperion Outfall decision. This increase is also requested in the amount provided for next year. With the exception of these two adjustments, the amount requested for these services is approximately the same as last year.

The Water Pollution Control Board and its subsidiary regional boards have now been in operation for over six years. During that period of time much has been accomplished, but there still remains much to be done in clearing up the waters of the State. Since the initial organization of the agency, its staffing has remained relatively constant with little increase during the six years. The request to undertake next year an expanded, formal monitoring program is the first major staffing increase of the agency, although other increases have been projected in past budgets. It is appropriate therefore, to examine the over-all structure of the agency to determine if, in the light of the past six years, it is performing its activities with the minimum expenditure of funds. In this respect there is room for serious doubt. Without questioning the regional concept of water pollution control, it appears doubtful that there is sufficient workload in all nine regional offices to justify the present field structure. It seems almost certain that about half the costs of the Indio and Bishop offices could be saved by establishing fewer and larger regional offices. In fact, it may be possible to achieve even further economies. The matter of the number of field offices becomes very important when an agency proposes to provide specialized staff (monitoring personnel) in field offices.

It is recommended therefore, that the Water Pollution Control Board be directed to survey its field organization and to report back in its next budget on: (1) possible economies resulting from revision of regional boundaries and consolidation of regional staffs; (2) the workload of each proposed region at present and projected into the immediate future; (3) travel patterns of regional employees and the location of major points of workload interest within each region; (4) any other matters determined by the agency to be significant. It is noted that in the next fiscal year the average salary of all permanent employees is approximately \$7,500 per year. This salary level reflects an excessive number of regional offices, each with executive officers and senior water pollution control engineers.

With the inclusion of the study outlined in the above paragraph, we recommend approval of the amount requested.

**Department of Water Resources
STATE WATER RIGHTS BOARD**

ITEM 273 of the Budget Bill

Budget page 974
Budget line No. 7

**FOR SUPPORT OF STATE WATER RIGHTS BOARD FROM THE
GENERAL FUND**

Amount requested	\$596,295
Estimated to be expended in 1956-57 Fiscal Year	498,063
 Increase (19.7 percent)	 \$98,232

Summary of Increase

	Total increase	INCREASE DUE TO Work load or salary adjustments	New services	Budget Line page No.
Salaries and wages	\$125,946	\$16,104	\$109,842	975 16
Operating expense	—29,536	—29,536 *	---	975 40
Equipment	—178	—178	---	975 49
Plus decrease in reimbursements ..	2,000	2,000	---	975 54
 Total increase	 \$98,232	 —\$11,610 *	 \$109,842	 975 56

* These figures show a decrease in work load when in fact an increase is occurring. This results from the reorganization and the elimination of a \$71,000 item for contract services with the Department of Water Resources. A compensating increase in salaries and wages is financed by the current year deficiency appropriation to replace most of these contract services.

RECOMMENDATIONS

Amount budgeted	\$596,295
Legislative Auditor's recommendation	574,903
 Reduction	 \$21,392

GENERAL SUMMARY

The State Water Rights Board is a new agency established by Chapter 52, First Extraordinary Session of 1956 and appears in the budget for the first time this year. The board's responsibilities and duties are: (1) administration of appropriation of unappropriated water through the application, permit and license procedure; (2) assistance in adjudication of water rights through court references and statutory adjudication; and (3) administration of the recordation of certain data on ground water extractions in Southern California as provided by the Legislature in the 1955 General Session. The board is composed of an engineer, an attorney and a representative of the public. The board's principal activity is to conduct hearings and to decide conflicting applications for permits to appropriate water.

Most of the board's present staff was transferred from the old Division of Water Resources on July 5, 1956, the effective date of the water agency reorganization. This staff was not considered adequate to conduct the affairs of the board. From its inception, the board was faced with the problem of a large backlog of unprocessed applications for permits, a number of pressing decisions on conflicting applications which were of great importance and complexity, and the need to undertake new activities for recordation of ground water uses. The board has thus been faced with many serious problems.

The board has attacked its problems with vigor and has taken a fresh look at the job to be done and the means of its accomplishment.

State Water Rights Board—Continued

In general, the board has determined that it will ask for sufficient staff to eliminate the backlog of applications for permits, that it will consolidate applications for permits into basin-wide hearings and that it will undertake to protect water users who secured their rights through the permit process from the encroachment of illegal diverters. The board is planning hearings on consolidated river basins in somewhat the following order: (1) American River; (2) Santa Clara River; (3) Santa Ana River Tributaries; (4) San Joaquin River; (5) Feather River; (6) Tule River; (7) Kern River.

In laying out such an extensive program, the board may be moving faster than availability of manpower and other organizational and procedural limitations will permit. However, the program objectives and the desire to accomplish them are much to the credit of the board.

ANALYSIS

The initial establishment of the State Water Rights Board was financed by the transfer of \$297,582 from the appropriations provided last session for support of the Division of Water Resources. To this amount it is proposed to add a deficiency appropriation of \$177,454, which with an allocation of \$23,027 from the salary increase fund, would provide a total of \$498,063 for the current year. Next year's budget requests an increase over the current year of \$98,232, for a total of \$596,295. At the time of the board's organization, 45 positions were transferred from the Division of Water Resources, an additional 17 new positions have been approved by the Department of Finance to be financed by the proposed deficiency appropriation and 10 new positions are being proposed to be added in next year's budget.

A review of the organization planned by the board, of the workload and backlog anticipated during the current and budget year, of the staffing and the funds requested in this budget indicates that there are many uncertainties related to this budget request. The most important of these may be noted as:

1. The board has recommended to the Assembly Interim Committee on Government Organization that the Watermaster Service and responsibility for trial distributions arising from statutory adjudications should be transferred from the Department of Water Resources to the Water Rights Board. This would substantially alter the staffing plans of the board.
2. The board's workload on court references is presently low, but it has no staff to handle any appreciable workload of this type and probably could not recruit personnel to conduct such work. It is not known how a large court reference could be handled. Fortunately none are pending.
3. The size of the job and the staffing required to undertake the new responsibilities in the recordation of ground water uses can only be estimated.
4. The Los Angeles office of the board has not yet been established as a full scale operation.
5. The ability of the board to fill existing vacancies is not subject to precise determination, but is doubtful.

State Water Rights Board—Continued

The considerations enumerated above, plus the fact that the internal procedures of the agency are not fully developed have made it impossible to develop any specific recommendations on the exact staffing needs of the board at this time. Only as these problems are resolved will it be possible to evaluate staffing requirements on some acceptable basis. In the meantime, it seems clear that the responsibilities of the board are important to the future of water development in California and that the board should not be precluded from efficiently performing its duties because of too stringent budget limitations. There are, however, several increases which warrant mention. In requesting these increases the board is adding new services or assuming new or hitherto dormant responsibilities.

Two assistant engineers are requested to expand the board's investigation of applications for permits. In the past it has been the practice to grant all uncontested permit applications on the assumption that if no protest is received no injury will result to existing rights. This assumption has proven to be in error and it is now proposed to conduct field investigations to assure that unappropriated water is available. Two other assistant engineers are also requested to gather field data when the board orders consolidated basin-wide hearings on pending applications for permits.

It is the intention of the board to seek court tests to determine whether diverters seeking prescriptive rights must comply with the provisions of the Water Code requiring an appropriator to seek a permit through the processes administered by the board. In addition, the board intends to act more decisively, through court action if necessary under Water Code Section No. 1052, to prevent unauthorized diversions of water already appropriated. Firm assurances have been received from the board's staff that these undertakings will not result in the board's undertaking to police all appropriators and to protect through board actions the water rights of the citizens of the State. Special attention is called to the fact that the board proposes to undertake State action to preserve private rights which have traditionally been protected by recourse of the injured parties to the courts.

An assistant engineer to process permit applications and three clerical positions to assist in processing applications are also requested on the basis of increased workload resulting from an increase in the number of permits and licenses processed.

The following items are recommended for deletion:

- 1 Associate engineer for water rights hearing (Budget page 974, line 76) ----- \$7,008

The provisions of Chapter 52 have automatically added considerably to the cost of conducting the work given to the board. These costs may be listed as follows:

Three board members, salary-----	\$45,000
Exempt assistant to the board, salary-----	11,400
Three secretaries to board members, salary-----	13,992
Travel for these positions-----	14,412

State Water Rights Board—Continued

Other organizational costs have been added in separating the board from the Division of Water Resources. The total increased costs attributable solely to establishment of the board are estimated by the Department of Finance to be \$97,600. For this additional cost there is no substantial increase in the capacity of the agency to handle more applications for permits compared to the former organization. While the board's internal procedures are not yet fully developed, it appears at this time that it is not the intention of the board members to write most of their own decisions on the more important cases that the board members hear. In fact the board members, even though being paid \$15,000 per year are not now devoting full time to the board's activities. Instead a new position is being requested to help prepare for board hearings, gather data and prepare material on which the board can base its decisions. It is recommended that the board members write their own decisions and analyze the records themselves for major decisions and in general conduct the hearings in such a manner that staff which duplicates the legal and engineering skills of the board members is not required to attend all board hearings. If this is done, it will be possible to eliminate at least the position of the associate engineer which is being requested.

1 Secretary-stenographer (Budget page 974, line 79)----- \$4,884

The budget requests a private secretary for each member of the board. The workload to justify these three positions has not been presented and the agency has already agreed that two will be adequate for the current year. In view of the fact that the board members will spend substantial time away from the Sacramento office while conducting hearings and that a large clerical staff is proposed for the agency, it is recommended that two secretaries provide the service for all three board members.

Traveling—in-state (Budget page 975, line 28)----- \$38,000

We recommend reduction of this item by \$8,000.

It has already been noted that the establishment of the board and associated positions has resulted in additional appropriations without substantial increase in capacity to handle workload by the agency, at least as proposed in this budget request. It has also been noted that the board members are not devoting full time to their duties even though a salary of \$15,000 per year is provided. Two board members have their official travel headquarters designated at their residences. As a result it is possible for these board members to conduct outside business affairs while receiving full salary from the State and to be compensated for costs of travel and per diem at any time while on official duty. It is recommended that board travel within the State be reduced by \$4,000 from \$10,500 to \$6,500 to eliminate this practice.

Travel for field personnel is increased from \$9,200 to \$22,700. This increase appears excessive in view of current year needs and the salary savings provided in the Budget. If, as recommended above, the board conducts its hearings with minimum staff, a further savings can be made in staff travel to attend hearings. A reduction of \$4,000 in this item appears in order.

State Water Rights Board—Continued

Traveling—out-of-state (Budget page 975, line 29)----- \$2,112

Although it is obvious that the determination of water rights is an important function in the affairs of California State Government, it was clearly stated in the Legislature during the debates on establishing the Department of Water Resources that the director was the spokesman and leader in water problems for the State. This was one of the main reasons for consolidating the water agencies of the State into the Department of Water Resources. There have recently been several indications that the State Water Rights Board feels that it should represent the State on any problem related to water rights and that it should have certain representations on the State Soil Conservation Advisory Board. The board is requesting \$2,112 for out-of-state travel to appear at congressional hearings. It is important that this problem be resolved at its inception.

We recommend that out-of-state travel be reduced by \$1,500 to disallow this travel to Washington, D. C.

The deficiency appropriation of the agency requests \$1,500 for carpets for the board members. The language of Section 13 of the Budget Act of 1956 states the legislative policy that "No money appropriated by this act shall be used, either directly or by supplementing any other appropriation, to furnish rugs or carpets for any state office except for offices used by elective officers and other department heads."

It is recommended that these carpets not be purchased.

There are a number of instances in which it is felt that economies or better operations may result if the board and its staff give careful consideration to certain problems. These are:

1. The recruiting and training of subprofessional employees for certain work of the board in place of filling all positions with professional engineers as proposed in this budget request.
2. The budget request contains an operating expense item of \$8,400 for court reporter services. This amount would be more than adequate to hire one full-time reporter on the board's staff. The board may find it more economical to hire its own staff reporter and to integrate this work with other positions on the staff.
3. The board and its staff should continue to give careful attention to the provisions of Sec. 197 of the Water Code which provide for exchange of information with the Department of Water Resources. It may be desirable to prepare a memorandum of understanding between the board and the department.

Subject to the reduction of \$21,392 recommended above, it is recommended that the appropriation request be allowed. Because the workload and internal organization of the State Water Rights Board are not sufficiently well known at this time to permit an unqualified recommendation for approval, it is recommended that \$574,903 be allowed so that the board can continue its organization activities, gain experience in workload and more clearly establish its staffing needs, without jeopardizing the ability of the board to recruit necessary personnel or to execute its program. The allowance of this appropriation should not

State Water Rights Board—Continued

be construed as an unqualified approval of presently uncertain staffing plans. Rather the agency should be prepared next year to completely justify its total budget request, based on one year's actual operating experience. Although the Department of Finance has provided for salary savings of \$58,334 in the current year and of \$15,000 in the budget year, it is still possible that additional savings will occur because not all new positions may be filled. Therefore, *we recommend that the Department of Finance be instructed to assure that any funds provided for salaries and equipment which remain from such unfilled positions should not be expended for purposes not included in such positions as described in the budget. To that end the Department of Finance should provide a report to the Legislature at the next budget session of the amounts and sources of such savings if any should occur.*

WORKMEN'S COMPENSATION BENEFITS FOR STATE EMPLOYEES

ITEM 274 of the Budget Bill

Budget page 991
Budget line No. 36**FOR SUPPORT OF WORKMEN'S COMPENSATION BENEFITS FOR
STATE EMPLOYEES FROM THE GENERAL FUND**

Amount requested	\$1,300,000
Estimated to be expended in 1956-57 Fiscal Year	1,120,000
Increase (16.1 percent)	\$180,000

RECOMMENDATIONS

Amount budgeted	\$1,300,000
Legislative Auditor's recommendation	1,300,000
Reduction	None

The cost of workmen's compensation benefits for state officers and employees whose salaries are paid from the General Fund is estimated at \$1,300,000 for the budget year. This is an increase of \$180,000 or 16.1 percent over the amount estimated to be expended in the current year.

The State is self-insured for this purpose and the State Compensation Insurance Fund administers the details of handling claims and making payments.

We recommend approval of the budget as submitted.