

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 91-98

AUTHORIZATION FOR THE EXECUTIVE DIRECTOR, OR HIS DESIGNEE, TO ACCEPT THE FEDERAL FISCAL YEAR 1992 CLEAN WATER ACT SUPPLEMENTAL SECTION 106 GROUND WATER GRANT AND TO NEGOTIATE, EXECUTE, APPROVE, AND/OR AMEND WORKPLAN ACTIVITIES, CONTRACTS, AND AGREEMENTS NOT AFFECTING THE TOTAL GRANT AMOUNT

WHEREAS:

1. The State Water Resources Control Board (State Board) administers the Federal Clean Water Act Section 106 Grant, including the Supplemental Section 106 Ground Water Grant, in California.
2. The U.S. Environmental Protection Agency (EPA) has stated the Supplemental Section 106 Ground Water Grant funding levels for California in Federal Fiscal Year (FFY) 1992 will be approximately \$520,000. Additional funds may be carried over from the FFY 1991 Grant award.
3. A workplan and grant application have been developed consistent with EPA grant guidelines and the State Board's Preliminary Strategy for Ground Water Protection dated November 1987.

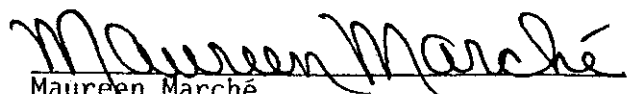
THEREFORE BE IT RESOLVED:

That the State Board approves the workplan and authorizes the Executive Director, or his designee, to:

1. Apply for and accept the FFY 1992 Supplemental Section 106 Ground Water Grant for an amount up to \$520,000, plus any carry-over FFY 1991 grant funds.
2. Negotiate, approve, and modify program activities, workplans, and grant applications not affecting the total Grant amount.
3. Negotiate, execute, and/or amend contracts and agreements in accordance with the program activities and workplans.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 24, 1991.

  
Maureen Marché  
Administrative Assistant to the Board

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STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF WATER QUALITY

WORKPLAN FOR  
GROUND WATER ACTIVITIES  
FINAL VERSION

SECTION 106 GRANT  
CLEAN WATER ACT  
FEDERAL FISCAL YEAR (FFY) 1992

OCTOBER 1991

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**GROUND WATER ELEMENT**  
**CLEAN WATER ACT SECTION 106 GRANT WORKPLAN**  
**FFY 1992**

**PROGRAM STATEMENT**

The long-term goal of the Clean Water Act (CWA) Section 106 Ground Water grant is to implement the California Preliminary Ground Water Quality Protection Strategy (Ground Water Strategy) dated November 1987 by initiating or advancing tasks which further delineate areas of ground water pollution and by initiating procedures designed to impede ground water degradation. To accomplish this, the grant funds are used for various activities which are directed toward the protection of the ground water quality of the State.

Historic use of the CWA Section 106 Ground Water grants has been for preparation of the Ground Water Strategy, and development of improvements to the Regional Water Quality Control Plans (Basin Plans) and statewide Water Quality Assessments (WQAs) through a more thorough assessment of ground water quality. With the exception of the strategy development which was completed in FFY 1988, a continuation of these activities is intended.

In FFY 1992, the Division of Water Quality's Ground Water Unit and the Well Investigation Unit will be combined to create a Ground Water Investigation Unit. Administration of the Section 106 Ground Water grant will be conducted by the Ground Water Investigation Unit.

The tasks below describe activities to be funded with FFY 1992 grant funds as well as funds carried over from FFY 1991.

**PROGRAM MANAGEMENT**

**ELEMENT 100:**

**TASK 101:** GRANT/WORKPLAN ADMINISTRATION

**OBJECTIVE:** Prepare grant documents, workplan, and status reports.

**DESCRIPTION:** This task covers all routine administrative duties: the preparation of status reports and meetings with the U.S. Environmental Protection Agency (EPA), in-state travel for soliciting data and input from California Regional Water Quality Control Boards (Regional Boards), preparation of the coming year's workplans, and other needs as required.

**COORDINATION:** The grant documents, workplans, and status reports will be discussed and reviewed with EPA staff.

**PRODUCT:** The preparation of quarterly reports which are due 30 days after the end of the quarter; the participation in meetings and review of drafts for EPA mid-year and end-of-year reviews; and the preparation of a draft version of the FFY 1993 Workplan due July 1, 1992. The final version of the FFY 1993 Workplan is due to EPA by September 1, 1992.

**SCHEDULE:** Ongoing; see "Product" item above for schedule of quarterly reports.

**BUDGET:** 0.50 personnel year (PY) (for Ground Water Investigation Unit).

**TASK 102:** CONTRACT PREPARATION/MANAGEMENT

**OBJECTIVE:** Prepare, manage, and close out contracts.

**DESCRIPTION:** This task includes activities to make precontract evaluations, to prepare contracts, to carry out contract oversight, budget review, to manage work in progress, and to close out contracts. Adequate time must be allowed and utilized for determining exact contract goals, the language to accomplish these goals, for contract preparations, and for contract in-progress reviews, oversight, and management.

**COORDINATION:** Contract activities will be coordinated with EPA, contractors, Division of Administrative Services (DAS) staff, and other interested parties.

**PRODUCT:** The final products will be the reports produced by the contracting agencies or consultants.

**SCHEDULE:** Ongoing; specific schedules for the development of the contracts are discussed below in Element No. 700.

**BUDGET:** 0.30 PY (for Ground Water Investigation Unit).



**TASK 103: STAFF TRAINING**

**OBJECTIVE:** Provide training resources for Ground Water Investigation Unit staff.

**DESCRIPTION:** As noted in Action No. 7 of Chapter V, Action Plan, of the Preliminary Ground Water Protection Strategy, training must be provided to ensure Ground Water Unit staff maintain current technical state-of-the-art knowledge concerning ground water quality.

**COORDINATION:** Not applicable.

**PRODUCT:** Not applicable.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.20 PY (Ground Water Investigation Unit).

**TASK 104: CLERICAL SUPPORT**

**OBJECTIVE:** Provide clerical support for Ground Water Unit staff.

**DESCRIPTION:** This task covers various clerical, administrative, and filing duties to support Ground Water Investigation Unit staff. This task includes resources for clerical oversight by the Section and Branch Chiefs' secretaries.

**COORDINATION:** Not applicable.

**PRODUCT:** Various products generated by Ground Water Investigation Unit staff.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.70 PY (0.50 PY for direct clerical support for Unit, 0.20 FY for Section Chief's secretary).

**TASK 105: PROCUREMENT OF A GEOGRAPHIC INFORMATION SYSTEM (GIS)**

**OBJECTIVE:** Complete the tasks required to gain State approval to purchase a GIS.

**DESCRIPTION:** A GIS consist of hardware, software, and trained staff, and provides the means to integrate data that are referenced by location. Under this task, activities will be conducted as required by the State to procure the hardware and software part of a GIS.

This process includes writing and gaining approval on a feasibility study report (FSR) and a Section 28 budget document, with assistance of staff from the State's Stephen P. Teale Data Center (TDC). An FSR outlines why the equipment is needed, its intended use, and how it will be financed. A Section 28 budget

document is required to gain the equipment authority needed to purchase the equipment. TDC is the State agency coordinating the procurement of GIS equipment.

**COORDINATION:** This task will be coordinated with TDC.

**PRODUCT:** The UNIX work station running ESRI ARC/Info GIS software.

**SCHEDULE:** This task will be initiated October 1, 1991 and should be completed by February 1, 1992.

**BUDGET:** The budget for this task includes both personnel and equipment cost. The total estimated budget for this project is 0.10 PY (Ground Water Investigation Unit), and \$50,000 for GIS equipment and software.

**ELEMENT 200: STATEWIDE PLANNING**

**TASK 201:** 1992 AND 1993 WATER QUALITY ASSESSMENTS (WQAs)--STATEWIDE COORDINATION

**OBJECTIVE:** Statewide coordination by Monitoring and Assessment Unit staff of the ground water sections of the 1992 and 1993 WQAs.

**DESCRIPTION:** This task will provide funding to the Monitoring and Assessment Unit to coordinate ground water activities related to the 1992 and 1993 WQAs.

The WQAs are a statewide catalog of California waterbodies, listed according to geographical region and water body type (including ground water basins). They provide a description of each water body's current water quality and the nature and source of possible impairments. The WQAs are an important component of the State Water Resources Control Board's (State Board) Clean Water Strategy since they provide the foundation for identifying high priority water bodies where preventative and/or corrective actions are needed. The aim of the State Board's Clean Water Strategy is to direct these preventative and/or corrective actions to the water bodies where they have the greatest impact.

**COORDINATION:** This task will be coordinated with the appropriate State and Regional Board staffs, including Ground Water Investigation Unit staff (see Task No. 202 below).

**PRODUCT:** The ground water section of the 1992 and 1993 WQAs which will be a comprehensive compilation of California's ground water resources delineating aerial extent, present and potential beneficial uses impacted, and degree of impairment. The product will be coordinated with the State Board's Clean Water Strategy.

**SCHEDULE:** The statewide coordination will be ongoing. The 1992 WQA should be completed by April 1992. The 1993 WQA should be completed by April 1993.

**BUDGET:** 0.75 PY (Monitoring and Assessment Unit) in FFY 1992. This task will continue in FFY 1993.

**TASK 202:** 1992 WATER QUALITY ASSESSMENT--METHODODOLOGY PARTICIPATION

**OBJECTIVE:** Ground Water Investigation Unit staff will participate in implementing the methodology for compiling the ground water section of the 1992 WQA.

**DESCRIPTION:** Utilizing the experiences of the 1990 and 1991 WQAs, Ground Water Investigation Unit staff has participated with other State and Regional Board staffs in establishing a methodology for compiling the ground water section of the 1991 and subsequent WQAs. The methodology was delivered to the Regional Boards by September 1991. The overall statewide coordination of the 1992 WQA will be conducted by the Monitoring and Assessment Unit (see Task No. 201 above). This task involves Ground Water Investigation Unit participation in the implementation of the methodology in selected basins in each Region.

**COORDINATION:** This task will be coordinated with the appropriate State and Regional Board staffs.

**PRODUCT:** Guidance package for use by Regional Board staff in developing the implementation and revisions, as necessary, of the ground water section of the 1992 WQA.

**SCHEDULE:** The initial guidance package was delivered to the Regional Boards in September 1990. Revisions and updates are ongoing. Ground Water Investigation Unit assistance on selected basins in each Region is ongoing.

**BUDGET:** 0.30 PY (Ground Water Investigation Unit) in FFY 1992; this task may continue into FFY 1993 for 1993 WQA activities.

**TASK 203:** BASIN PRIORITY METHODOLOGY

**OBJECTIVE:** Rank the State's ground water basins for directing investigations of degraded ground water basins.

**DESCRIPTION:** In 1975, the State Board adopted a set of criteria for assigning priorities to the State's ground water basins for designing and operating ground water networks. State Board staff has used these criteria in conjunction with the hydrogeology and the occurrence of degraded wells to establish a methodology for ranking of the State's ground water basins.

Utilizing the methodology, all of the State's major ground water basins have been ranked, and the ranking is currently used by State and Regional Board program staffs to assist in determining priority of investigations. The ranking is revised as new

information is obtained. The ranking scheme has enabled State and Regional Board staffs to concentrate investigation efforts in areas of greatest concern to the State.

Some of the criteria used for ranking the basins, such as population, is taken from the Census Data. Additional data from the 1990 Census could be used to evaluate ground water basins. Among those data are sewage disposal methods, sources of water, industrial types, and occupational types all of which are correlated to various geographical areas, including counties and zip codes. Including these other data from the Census would increase the cost of the program.

**COORDINATION:** The well priority methodology and ranking are available to all State, Federal, and local agencies.

**PRODUCT:** Updated ranking and prioritization of ground water basins for investigations.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.50 PY in FFY 1992. (Ground Water Investigation Unit).

**ELEMENT 300: NITRATE ACTIVITIES**

**TASK 301: INTERAGENCY COORDINATION**

**OBJECTIVE:** Coordinate nitrate tasks with the Regional Boards, California Department of Food and Agriculture (CDFA), Department of Water Resources (DWR), and others who are involved with nitrate activities.

**DESCRIPTION:** This task involves participating and coordinating nitrate-related activities with the public, CDFA, and various State and Regional Board units, including the Nonpoint Source and Water Quality Planning Programs.

**COORDINATION:** Interagency coordination is the focus of this task.

**PRODUCT:** Not applicable.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.20 PY (Ground Water Investigation Unit).

**TASK 302: DAIRY INVENTORY UPDATE**

**OBJECTIVE:** Update a computerized inventory of the approximate 2,200 dairies in California.

**DESCRIPTION:** To assist the State and Regional Board Dairy Waste Task Force, a comprehensive inventory of dairy operations in the State was

compiled in FFY 1990. Utilizing hard copy CDFA lists, a computerized inventory of dairies will be developed so that the lists can be sorted by county, region, etc. The list is used in preparation of an outreach program aimed at the dairy industry and local government. The outreach program will be coordinated by the State Board's Nonpoint Source Section. Ground Water Unit staff will update the inventory as new information becomes available.

**COORDINATION:** This activity will be coordinated with CDFA, the Regional Boards, and the Nonpoint Source Section.

**PRODUCT:** Computerized inventory of dairies in California.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.10 PY (Ground Water Investigation Unit); \$3,000 for contract students for data entry.

**TASK 303:** University of California, Davis (UC-DAVIS) NITRATE STUDY

**OBJECTIVE:** Develop scientifically based nitrate source identification and quantification procedures.

**DESCRIPTION:** A contract is being negotiated with UC-Davis to develop nitrate source identification and quantification procedures. The Basin Planning Unit will provide contract management in conjunction with several State and Regional Board staff members. The overall scope and schedule are still being developed as of February 1991.

**COORDINATION:** This study will be coordinated with the Basin Planning Unit and the Los Angeles and Central Coast Regional Boards.

**PRODUCT:** Procedures manual for conducting nitrate investigations.

**SCHEDULE:** To be determined.

**BUDGET:** The overall budget will be approximately \$239,600 during the contract period. (\$48,570 Federal Section 106 Ground Water Grant funds).

**TASK 304:** NITRATE CONTAMINATION INVENTORY USING A GEOGRAPHIC INFORMATION SYSTEM (GIS)

**OBJECTIVE:** Use a GIS and existing data on nitrate contamination in California to inventory ground water resources lost to nitrate contamination.

**DESCRIPTION:** Inorganic contaminants, such as nitrates, have been found in substantial numbers of California wells. In many ground water aquifers, both inorganic and organic contaminants exceed drinking water standards. Removal of organic contaminants alone, however,

does not restore the ground water resource. Nitrates cause a greater loss of ground water production in some basins than does any single organic chemical. For example, Metropolitan Water District (MWD) of Southern California estimates it is losing 4 percent of its drinking water supply annually to nitrates and total dissolved solids. In contrast, MWD has lost less than one-half percent of its drinking water supply due to degradation by toxic organic contaminants. This project would allow State Board staff to evaluate the nitrate contamination problem. It will also provide the basis for the integrating of numerous State Board databases into a GIS.

Information requirements for the GIS project include geologic data, inorganic water quality data, and a base map showing ground water basins and Regional Board boundaries. Some data currently exist in digital form that can be directly loaded into the GIS database with only minor modification. Unfortunately, most of the nitrate data is dispersed among many different State and local agencies, typically in nondigital forms. A major task in this work will be to locate, collect, and load the data into the GIS.

The base map for this project, the Ground Water Basin (GWB) Map, is being updated as part of a separate project by the Department of Water Resources (see related task number). Digital copies of the base map will be produced under this task number.

As part of the report, the spatial analyses and hard copy maps will be produced (within budget and data constraints) for each hydrologic study area. The GWB map will be used as the base layer of each hard copy map. For each hydrologic study area (Region), a plot of the distribution of wells with recorded nitrate concentration will be developed. A summary of the number and percentage of wells affected will be calculated by ground water basin and hydrologic unit.

These analyses will delineate areas within each hydrologic study area in need of further study. Additionally, if sufficient land use information can be obtained, an estimate will be made of the relative contributions of man-made and/or natural sources of nitrate. Also, if sufficient information is available, the final report will address the usefulness of the GIS process as a mechanism for a preventative approach to ground water protection from nitrate contamination.

Initially, hardware, software, and personnel will be provided by the State's Stephen P. Teale Data Center (TDC). TDC will digitize the base map and design the GIS database. The database and base map will then be transferred to the State Board GIS (see Task 105 above). State Board staff will load the data, perform the analyses, and generate the hard copy plots.

**COORDINATION:** This task will be coordinated with other Federal, State and local agencies, including TDC.

**PRODUCT:** A report entitled: Developing An Inventory of Nitrate Contamination in California Ground Water Using Geographic Information System Technology.

**SCHEDULE:** The project will be initiated January 1, 1992; major milestones include:

1. Complete the digitizing of GWB base map and data base design December 1992.
2. Collect available nitrate information from State and local agencies. Begin January 1, 1992, completion schedule to be determined.
3. Quarterly status reports will be prepared within 30 days after the end of each quarter.
4. Complete analysis and write final report: July 1994.

**BUDGET:** The total estimated budget for this project is 1.00 PY; \$24,000 to contract for student services. The estimated grant expenditures in FFY 1991/92 are 0.30 PY, \$6,000 for student help. This task will continue in FFYs 1993 and 1994.

**ELEMENT 400**

**GROUND WATER INFORMATION**

**TASK 401:** MONITORING COORDINATING COMMITTEE

**OBJECTIVE:** Participate on the Monitoring Coordinating Committee (MCC)

**DESCRIPTION:** The State and Regional Boards have formed the MCC to coordinate monitoring activities. The MCC reviews and makes recommendations on monitoring proposals developed by State and Regional Board staffs. The MCC is developing guidelines for development of regional monitoring plans by Regional Boards. It is also reviewing data storage and retrieval systems in an effort to increase their usefulness.

**COORDINATION:** Initial coordination will be between State and Regional Board staff. Long-term coordination may include other State, Federal, and local agencies.

**PRODUCT:** Guidelines for regional monitoring plans and recommendations on data storage and retrieval systems.

**SCHEDULE:** The Regional monitoring plan guidelines should be drafted by Summer 1991. Recommendations on data storage and retrieval systems should be completed by Fall 1991.

- BUDGET:** 0.20 PY (Ground Water Investigation Unit) in FFY 1992; this task may continue into FFY 1993.
- TASK 402:** STORET PILOT STUDY PARTICIPATION
- OBJECTIVE:** Participate in the STORET Pilot Study.
- DESCRIPTION:** The MCC (see Task No. 403 above) above and State Board staff have recommended that several State and Regional Board offices participate in a pilot study to determine the usefulness of STORET as a long-term data storage and retrieval system for the State and Regional Boards. As of August 1991, the overall scope and schedule of the pilot study still were being developed.
- COORDINATION:** The pilot study will be coordinated between the State Board, selected Regional Boards, Division of Administrative Services, and U.S. Environmental Protection Agency.
- PRODUCT:** Report summarizing the usefulness of STORET as a long-term data storage and retrieval system for the State and Regional Boards.
- SCHEDULE:** The pilot study should be initiated in Fall 1991.
- BUDGET:** 0.10 PY (Ground Water Investigation Unit) in FFY 1992 and \$5,000 for contract students; this task may continue into FFY 1993.
- TASK 403:** DEGRADED WELL DATABASE
- OBJECTIVE:** Periodically gather information on degraded wells in the State from the Department of Health Services (DHS), CDFA, and other agencies.
- DESCRIPTION:** A comprehensive database has been established that compiles information about all wells in the State known to contain organic chemicals. The database includes information on well location, concentrations of chemicals detected, and reporting agency. This database was also augmented and updated by a one-time survey of public water purveyors, as described in Task No. 502 of the FFY 1991 Workplan. The information in the database is utilized by State Board and Regional Board staffs in compiling the ground water section of the WQAs and establishing priority investigations in the Well Investigation Program.
- This database will be expanded to include some inorganic contaminants. It will be one of the base files used by a GIS system (see Tasks 105 and 304 above).
- COORDINATION:** The information is periodically gathered from DHS, CDFA, and other agencies, as available. The information will also be



provided to the Monitoring and Assessment Unit and Regional Boards to assist in the compilation of future WQAs (see Task No. 201 above).

**PRODUCT:** Computer database.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.20 PY (Ground Water Investigation Unit) in FFY 1992. This task will continue into FFY 1993.

**TASK 404:** TEALE DATA ASSISTANCE

**OBJECTIVE:** Obtain Teale Data Center (TDC) assistance for Ground Water Investigation Unit.

**DESCRIPTION:** This task will provide funding to TDC to assist Ground Water Investigation Unit staff on various GIS activities.

**COORDINATION:** Not applicable.

**PRODUCT:** To be determined.

**SCHEDULE:** To be determined.

**BUDGET:** \$9,990 (Contract)

**ELEMENT 500:**

**SPECIAL STUDIES**

**TASK 501:** WELL STANDARDS ORDINANCE ASSISTANCE

**OBJECTIVE:** Provide assistance to local agencies in their implementation of well standards ordinances.

**DESCRIPTION:** This task will provide assistance to local agencies to protect the quality of ground waters by ensuring that wells do not act as conduits for contaminants as the result of inadequate construction or improper destruction of abandoned wells. Local agencies adopt well standards ordinances applicable to the construction, reconstruction, and destruction of water wells, monitoring wells, and cathodic protection wells. (Well standards are specified in DWR Bulletin 74-81, which is undergoing revision.) Oversight and assistance by the State Board is needed to ensure that local agencies implement well standards ordinances.

Upon request, staff will review a local agency's well standards ordinance to determine if its well standards are at least as stringent as those specified in Bulletin 74-81 pursuant to Water Code (WC) Section 13801(c). Also, these reviews are to determine

if local ordinances are in substantial conformance with the State Board's Model Well Standards Ordinance in accordance with State Board Resolution No. 89-98.

Resources permitting, an additional activity could include verifying whether local agencies are enforcing either local well standards ordinances or the Model Ordinance pursuant to WC Section 13801(d). This may be accomplished by performing random "spot" inspections.

- COORDINATION:** Implementation of the Well Standards Program is to be coordinated with DWR and the Regional Boards.
- PRODUCT:** Products resulting from performance of programmatic tasks should include quarterly, interim, and final status reports summarizing findings with any recommendations for necessary additional work. The status reports will be developed 30 days after the end of the FFY quarter.
- SCHEDULE:** This task was transferred to the Ground Water Investigation Unit from the Division of Clean Water Programs in June 1991.
- BUDGET:** 0.15 PY (Ground Water Investigation Unit) will be utilized in FFY 1992; \$6,000 for contract student interns. This task will continue in FFY 1993.
- TASK 502:** STATE GROUND WATER PROGRAM PROFILE--STAFF PARTICIPATION
- OBJECTIVE:** Participate with EPA staff during their compilation of a State ground water program profile.
- DESCRIPTION:** During FFY 1991, EPA staff will be completing a State ground water program profile. The profile is an assessment to identify gaps in a State's comprehensive ground water program and to set priorities for future program activities.
- This task will provide resources for State Board staff to participate with EPA in its compilation of the profile.
- COORDINATION:** This task will be coordinated with the appropriate EPA and State Board staff.
- PRODUCT:** A State ground water program profile by EPA.
- BUDGET:** 0.25 PY (Ground Water Investigation Unit).
- TASK 503:** PERCHLOROETHYLENE (PCE) OUTREACH ACTIVITIES
- OBJECTIVE:** Provide information to the interested public on ways to eliminate the discharge of PCE to sewers at dry cleaning facilities.

**DESCRIPTION:** The discharge to sewers of dry cleaning separator water containing PCE has resulted in a serious water quality problem in California. Because sewers allow the escape of PCE to soils and ground water, the State and Regional Boards would like to eliminate these discharges. Equipment is now available that can remove PCE from separator water and recycle both the chemical and the water. State Board staff is currently working with the California Fabricare Institute to publicize the benefits of these PCE removal units and encouraging dry cleaners to use them. These efforts should continue into FFY 1992.

**COORDINATION:** This task also requires working with other State and local agencies to ensure that all relevant air and water quality laws are not violated. Agencies include the Department of Health Services, County governments, and municipalities.

**PRODUCT:** Public informational memoranda and workshop.

**SCHEDULE:** Ongoing throughout FFY 1992.

**BUDGET:** 0.20 PY (Ground Water Investigation Unit) in FFY 1992.

**TASK 504:** COMPLETION OF BASIN MAPS

**OBJECTIVE:** Complete maps currently being prepared by DWR.

**DESCRIPTION:** Integration of statewide ground water information would be significantly enhanced by using uniform, updated ground water basin maps.

**PRODUCT:** Printing maps.

**BUDGET:** 0.10 PY (Ground Water Investigation Unit).

**TASK 505:** PUBLIC OUTREACH ACTIVITIES

**OBJECTIVE:** Identify potential public outreach activities related to ground water protection.

**DESCRIPTION:** This task will identify potential outreach activities that could provide information, education, and technical assistance on ground water protection to local agencies and the public.

**COORDINATION:** This task will be coordinated with the State Board's Office of Legislative and Public Affairs.

**PRODUCT:** Staff report summarizing recommended activities.

**SCHEDULE:** To be determined.

**BUDGET:** 0.10 PY (Ground Water Investigation Unit); \$1,500 for contract students.

**TASK 506:** VULNERABILITY ASSESSMENT ACTIVITIES

**OBJECTIVE:** Identify potential vulnerability assessment activities that could be conducted in California.

**DESCRIPTION:** This task will identify potential resource and vulnerability assessment activities that could be conducted in California. In FFY 1991, staff, with contract student intern assistance, developed a report which compiled ground water.

**COORDINATION:** Not applicable.

**PRODUCT:** Staff report summarizing recommended activities.

**SCHEDULE:** To be determined.

**BUDGET:** 0.10 PY (Ground Water Investigation Unit); \$1,500 for contract students.

**ELEMENT 600:** PESTICIDES--GROUND WATER ACTIVITIES

**TASK 601:** INTERAGENCY COORDINATION

**OBJECTIVE:** Participate in meetings with various Federal/State agencies on pesticide-related activities in California.

**DESCRIPTION:** In order to effectively participate with CDFA in its development of the State Pesticide Management Plan, State Board staff will need to coordinate, track, and participate in meetings on other pesticide-related activities affecting surface/ground waters in the State. Examples include participation in meetings, reviewing products, etc., from the Nonpoint Source Program, 205(j) Water Quality Planning Program, and the AB 2021 activities. Included in this task are resources for State Board staff to describe State and Regional Board pesticide-ground water activities for the annual report to the Legislature. Also the Draft Pollutant Policy Document (October 1989) developed by the State Board's Bay-Delta Unit proposes a program to reduce and eliminate the discharge of synthetic organic agricultural chemicals which may impact the scope of the Pesticide Management Plan.

**COORDINATION:** Interagency coordination is the focus of this task.

**PRODUCT:** Not applicable.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.45 PY (0.10 PY for State Board Pesticide Liaison, and 0.35 PY for Ground Water Investigation Unit); \$10,000 for student interns.

**TASK 602:** STATE PESTICIDE MANAGEMENT PLAN--POINT SOURCE SECTION DEVELOPMENT

**OBJECTIVE:** Prepare sections of the State Pesticide Management Plan related to point source activities.

**DESCRIPTION:** The State Pesticide Management Plan could contain sections on ground water protection from pesticide handling, transport, storage, and disposal from sources of directly associating with application to fields. These sources, termed "point source", could include storage/mixing/loading areas, containers, and rinse waters, etc. Many of these sources are regulated by the State and Regional Boards rather than CDFA. As a result, State Board staff will be the principal authors of the sections of the State Pesticide Management Plan affecting the point source.

**COORDINATION:** This task will be coordinated with CDFA and other State and Regional Board staff.

**PRODUCT:** Sections of the State Pesticide Management Plan related to point source activities.

**SCHEDULE:** To be determined.

**BUDGET:** 0.20 PY in FFY 1992 (State Board Pesticide Liaison).

**TASK 603:** PESTICIDE USE INFORMATION

**OBJECTIVE:** Develop computer programs to retrieve pesticide use information by county, township, range, and section in tabular and graphical formats, including county use maps.

**DESCRIPTION:** An effective ground water monitoring program requires information on hydrogeological sensitive areas as well as pesticide use history in those areas. California now has a 100 percent pesticide use reporting requirement. CDFA issues quarterly and annual pesticide use reports. However, information on specific geographical location where the pesticides are used is not reported. Through this task, the raw use data tapes will be downloaded on a personal computer (PC) and programs will be developed to retrieve pesticide use information.

**COORDINATION:** Interagency coordination with CDFA.

**PRODUCT:** Products of this task will include tables and maps of pesticide use information for selected pesticides which are potential ground water contaminants.

**SCHEDULE:** Ongoing.

**BUDGET:** 0.20 PY (Ground Water Investigation Unit) in FFY 1992 and \$2,000 for contract students; this task may continue into FFY 1993.

**ELEMENT 700: CONTRACTS**

[Note: Element 700, Contracts, is a summary of the contracts to be negotiated during FFY 1992. Products and their respective schedules to be developed under contract are summarized in the appropriate tasks in Element Nos. 100 through 600 above.]

**CONTRACT 701: FY 1991-92 STUDENT INTERN CONTRACT**

**OBJECTIVE:** Provide student interns to assist Pesticide Liaison and Ground Water Investigation Unit staff.

**DESCRIPTION:** A contract will be negotiated with University of California Davis (UC-Davis) to provide the equivalent of four full-time students to assist State Board staff during State Fiscal Years 1990-91 and 1991-92. In the period of October 1, 1991 to June 30, 1992, the student interns will work on activities described above in Element No. 300, Nitrate Activities, Element No. 400, Ground Water Information, Element No. 500, Special Studies, and Element No. 600, Pesticides--Ground Water Activities. Activities for the remainder of FY 1991-92 will be more fully described in the FFY 1992 Section 106 Ground Water Workplan.

**COORDINATION:** Coordination will occur between the Ground Water Unit, Affirmative Action Office, Contracts Unit, and the University of California.

**PRODUCT:** See Element Nos. 300, 400, 500, and 600.

**SCHEDULE:** The contract is being negotiated in Spring 1991, and executed so that it is effective in Spring 1991.

**BUDGET:** \$20,000 for the period of December 1, 1991 to June 30, 1992.

**CONTRACT 702: FY 1992-93 STUDENT INTERN CONTRACT**

**OBJECTIVE:** Provide student interns to assist Ground Water Investigation Unit staff.

**DESCRIPTION:** A contract will be negotiated with either UC-Davis or the Hornet Foundation of California State University, Sacramento to assist State Board staff during FY 1992-93.

**COORDINATION:** Coordination will occur between the Ground Water Unit, Affirmative Action Office, Contracts Unit, and the selected Contractor.

**PRODUCT:** See Element Nos. 300, 400, 500, and 600.

**SCHEDULE:** The contract will be negotiated in Spring 1992, and executed so that it is effective in Summer 1992.

**BUDGET:** \$35,000 for State Fiscal Year 1992-93; \$15,000 during FFY 1992 and \$20,000 in the portion of FFY 1993 through June 30, 1993.

**CONTRACT 703:** UC-DAVIS NITRATE STUDY

**OBJECTIVE:** Develop scientifically based nitrate source identification and quantification procedures.

**DESCRIPTION:** See Task 303.

**COORDINATION:** See Task 303.

**PRODUCT:** See Task 304.

**SCHEDULE:** The scope, schedule, and costs were being negotiated in September 1991.

**BUDGET:** Approximately \$239,600 (\$48,570 encumbered from Section 106 Ground Water Grant funds in FFY 1992).

**CONTRACT 704:** TEALE DATA CENTER ASSISTANCE

**OBJECTIVE:** Provide funding to TDC to assist Ground Water Investigation Unit staff on various GIS activities.

**DESCRIPTION:** See Table 404

**COORDINATION:** Not applicable.

**PRODUCT:** To be determined.

**SCHEDULE:** Contract will be negotiated in Spring 1992.

**BUDGET:** \$9,990 in State Fiscal Year 1992-93

Updated: 8/19/91

FEDERAL FISCAL YEAR 1992  
SECTION 106 GROUND WATER WORKPLAN

Table 1: FFY 1992 EPA Funding Targets (including FFY 1991 Carry-over)

Description	EPA Target
FFY 1991 Carry-over (Estimate)	\$250,000
FFY 1991 Target	\$517,694
Grand Total	\$767,694

Updated: 9/12/91

Table 2: Classification Salary Ranges

Classification	Salary Range
	10/1/91-9/30/92
Staff Toxicologist	\$4,398-5,321
Senior Engineering Geologist	\$3,922-4,733
Associate Engineering Geo. and Engineer	\$3,577-4,313
Environmental Specialist III	\$3,249-3,922
Secretary	\$1,918-2,331
Office Technician	\$1,885-2,290
Word Processing Technician, Range B	\$1,749-2,125



Updated: 9/11/91

Table 3: Average Cost Per Personnel Year

Description	Amount
A. Average Cost/Position	\$48,886
B. Less Paid Time Off (14.93% of A)	- 7,284
C. Total Average Salary (A+B)	\$41,602
D. Staff Benefits (30% of C)	\$12,481
E. Total Personal Services (C+D)	\$54,083
F. Indirect Charges (80.17% of E)	+43,358
G. Total Average Cost Per Personnel Year	\$97,441

Updated: 9/11/91

Table 4: Workplan Budget Summary

Item	Total
<u>Proposed State Board Expenditures</u>	
o Staffing (6.20 PYs)	\$604,134
o Contracts	\$113,560
o Equipment	\$ 50,000
Total Expenditures	\$767,694

Updated: 9/12/91

Table 5: Task Budget Summary

No.	Description	Budget		
		Staffing	Contracts	Equipment
<b>ELEMENT 100</b>	<b>PROGRAM MANAGEMENT</b>	<b>1.80 PY</b>	<b>0</b>	<b>\$50,000</b>
Task 101	Grant Workplan/ Administration	0.50	0	0
Task 102	Contract Preparation/ Management	0.30	0	0
Task 103	Staff Training	0.20	0	0
Task 104	Clerical Support	0.70	0	0
Task 105	Procurement of a GIS System	0.10	0	50,000
<b>ELEMENT 200</b>	<b>STATEWIDE PLANNING</b>	<b>1.55 PY</b>	<b>0</b>	<b>0</b>
Task 201	1991 and 1992 Water Quality State- wide Coordination	0.75	0	0
Task 202	1991 and 1992 Water Quality Assessment-- Methodology Participation	0.30	0	0
Task 203	Basin Priority Methodology	0.50	0	0
<b>ELEMENT 300</b>	<b>NITRATE ACTIVITIES</b>	<b>0.60 PY</b>	<b>\$57,570</b>	<b>0</b>
Task 301	Interagency Coordination	0.20	0	0
Task 302	Dairy Inventory Update	0.10	\$ 3,000	0

Table 5 (cont.)

No.	Description	Budget		
		Staffing	Contracts	Equipment
Task 303	UC-Davis Nitrate Study	0.00	\$48,570	0
Task 304	Nitrate Contamination Inventory Using a Geographic Information System (GIS)	0.30	\$ 6,000	0
<b>ELEMENT 400</b>	<b>GROUND WATER INFORMATION</b>	<b>0.50 PY</b>	<b>\$14,990</b>	<b>0</b>
Task 401	Monitoring Coordinating Committee	0.20	0	0
Task 402	STORET Pilot Study Participation	0.10	\$ 5,000	0
Task 403	Degraded Well Database	0.20	0	0
Task 404	Teale Data Center Assistance	0.00	\$ 9,990	0
<b>ELEMENT 500</b>	<b>SPECIAL STUDIES</b>	<b>0.90 PY</b>	<b>\$ 9,000</b>	<b>0</b>
Task 501	Well Standards Ordinance Assistance	0.15	\$ 6,000	0
Task 502	State Ground Water Program Profile-- Staff Participation	0.25	0	0
Task 503	Perchloroethylene (PCE) Outreach Activities	0.20	0	0
Task 504	Completion of Basin Maps	0.10	0	0
Task 505	Public Outreach Activities	0.10	\$ 1,500	0
Task 506	Vulnerability Assessment Activities	0.10	\$ 1,500	0

Table 5 (cont.)

No.	Description	Budget		
		Staffing	Contracts	Equipment
<b>ELEMENT 600</b>	<b>PESTICIDES--GROUND WATER ACTIVITIES</b>	<b>0.85 PY</b>	<b>\$12,000</b>	<b>0</b>
Task 601	Interagency Coordination	0.45	\$10,000	0
Task 602	State Pesticide Management Plan--Point Source Section Development	0.20		0
Task 603	Pesticide Use Information	0.20	\$ 2,000	0
<b>ELEMENT 700</b>	<b>CONTRACTS</b>	<b>0</b>	<b>AS DEFINED ABOVE</b>	
<b>GRAND TOTAL</b>		<b>6.20 PYs</b>	<b>\$93,560*</b>	<b>\$50,000</b>

\*Note: \$20,000 of State FY 1992-93 Student Intern Contract reserved for FFY 1993. Total contract funds to be encumbered in FFY 1992 will be \$113,560.

Updated: 9/12/91

Table 6: Distribution of Staffing By Unit

Unit Total	Element No.						
	100	200	300	400	500	600	
<u>Division of Water Quality</u>							
Ground Water Investigation	1.10	0.80	0.60	0.50	0.90	0.55	4.45
Monitoring & Assessment	0	0.75	0	0	0	0	0.75
Pesticide Liaison	0	0	0	0	0	0.30	0.30
Clerical Support	0.70	0	0	0	0	0	0.70
Grand Total	1.80	1.55	0.60	0.50	0.90	0.85	6.20

Updated: 8/29/91

Table 7: Contract Budget Summary

No.	Contract Description	Manager	Budget		FFY 91 Expenditures		FFY 92 Expenditures	
			Total	Grant	Total	Grant	Total	Grant
701	Eighteenth Biennial Ground Water Conference	Ron Duff Ground Water	\$50,000 <sup>1/</sup>	\$15,000	\$20,000	\$ 2,000	\$30,000	\$13,000
702	Student Intern Contract	John Sarna Ground Water	65,570	65,570	25,570	25,570	40,000	40,000
703	UC-Davis Nitrate Study	Scott Flint Basin Planning	300,000 <sup>2/</sup>	50,000	75,000	44,000	225,000	6,000
704	Pesticide Use Information	Syed Ali Pesticides	10,000	10,000	2,000	2,000	8,000	8,000
705	Pesticide--Ground Water Monitoring	Syed Ali Pesticides	100,000	100,000	10,000	10,000	90,000	90,000
	Total		\$ 25,570	\$240,570	\$132,570	\$83,570	\$393,000	\$157,000

<sup>1/</sup> The Department of Water Resources and UC Water Resources Center will also contribute to the conference.

<sup>2/</sup> The Basin Planning Unit, Central Coast Regional Board, and Los Angeles Regional Board are also contributing funds.