REPORT TO THE LEGISLATURE
AS REQUIRED BY
FY 1999/00 BUDGET ACT SUPPLEMENTAL LANGUAGE

PRELIMINARY REPORT
CORE REGULATORY PROGRAMS' NEEDS ANALYSIS

INTRODUCTION

The Legislature's Supplemental Report Language to the FY 1999/2000 Budget Act directed the State Water Resources Control Board (SWRCB) to report to the Legislature on a baseline needs analysis for the core regulatory programs (the National Pollutant Discharge Elimination System [NPDES], Chapter 15, Non-Chapter 15, and Storm Water programs). The needs analysis is to "reflect current program responsibilities under state and federal law and the major threats to water quality needing to be addressed in light of existing water quality conditions. The analysis shall include, but not be limited to, an assessment of needs for a cost-effective compliance assurance and enforcement program that serves to maximize compliance with clean water requirements." The Supplemental Report Language directed the SWRCB to report to the Legislature on the needs analysis in a preliminary report by April 1, 2000 and a final report by January 1, 2001.

SB 390 (Chapter 686, Statutes of 1999) reinforced the Legislature's directive to provide reports on the baseline needs assessment. This legislation further directed the SWRCB to consider the overall cost of the program and determine the adequacy of fees currently collected and expended under Water Code Section 13260. The final report is to include the review of fees.

This preliminary report describes the status of the SWRCB and the Regional Water Quality Control Boards' (RWQCB) efforts to respond to the Supplemental Budget Act direction. The report presents background relating to the programs involved and their funding history, the work done to-date to provide an analysis of need and the process for completing the remaining steps of the evaluation.

BACKGROUND

The SWRCB and RWQCBs (Boards) have the responsibility and authority for protecting the quality of the State's waters, including surface water and groundwater. Water quality may be affected by a variety of sources of waste, but waste sources are generally categorized as point source or nonpoint source. Point source discharges are generally described as planned, easily-identified "end-of-pipe" waste discharges from man-made conveyance systems (e.g. publicly owned treatment works) while nonpoint source discharges result from more diffuse sources such as agriculture, forestry, etc. The focus of the first water quality protection actions under the Federal Clean Water Act and the State's Porter-Cologne Water Quality Act were point sources, as they were the most serious and the most easily identified and controlled. The Boards' core regulatory programs were established to deal with these discharges.

Over the last 25 years, the Boards' core regulatory programs have made significant gains in cleaning up polluted waters and stepping up protection of high quality waters. Despite this progress, the State's waters still have not reached the 1972 Clean Water Act goal of restoring all rivers, lakes and coastal areas to fishable and swimmable conditions. The most recent biennial review of the State's water quality, required by federal law, identified over 500 water bodies in California that do not meet existing water quality standards. Increasing demands for water supply; additional and more intense industrial, commercial, municipal and agricultural activity; and significant population growth have created new water quality problems and amplified the significance of once lesser problems. Increasingly, attention is now focused on the growing and historically largely ignored problem of pollution from nonpoint sources. Emphasis on solving the nonpoint source pollution problems will continue to increase at a state and national level, spurred in part by pressure from lawsuits.

Ongoing support of the core regulatory programs is crucial to sustain the gains made over the last 25 years in controlling pollution from point sources. The cycle of permitting (including revising and updating permits), monitoring, inspecting and enforcing compliance must be maintained. The complexity of this process is increasing as new treatment technologies are developed, new information on effects of toxic pollutants becomes available, and new regulatory initiatives, regulations and requirements are implemented.

To provide an updated look and better document the most significant point source needs, the Legislature directed the Boards to prepare a detailed needs analysis of the core regulatory programs. These programs are briefly summarized below to orient the reader to the key responsibilities and functions of each program, supply background on the number of permits and dischargers affected by the programs, and provide a framework for the discussion of the approach being taken by the Boards in preparing the requested needs analysis.

THE CORE REGULATORY PROGRAMS

The Boards' core regulatory programs include the NPDES, Storm Water, Chapter 15, and Non-Chapter 15 Programs. The Boards issue NPDES permits and Waste Discharge Requirements (WDRs) as one of the primary means of protecting water quality in the core regulatory programs. These regulatory tools impose limits on the quality and quantity of point source waste discharges. They specify conditions, which protect the beneficial uses and quality of receiving waters, implement Water Quality Control Plans, and when the discharge is to waters of the United States, meet the requirements of the Federal Clean Water Act. NPDES permits are issued to regulate discharges of waste from point sources to surface waters. Storm Water dischargers, even though they represent a more diffuse discharge than other point sources, are issued NPDES permits as a special category of point source discharge. WDRs are issued under State authority to regulate discharges to waters of the State (surface water and groundwater). These permits and WDRs can be in the form of an individual permit to an individual discharger or a "general permit" to multiple dischargers who discharge similar types of waste from similar sources.

NPDES Program

NPDES permits, issued by the Boards, are required for all point source pollution discharges of waste into California's surface waters to prevent pollution, loss or impairment of beneficial uses of the waters, damage to or loss of aquatic species and habitat, prevent human health problems

and control waterborne diseases. In California, the NPDES Program is mandated by the Federal Clean Water Act and administered by the State. California has approximately 2,200 active NPDES permits protecting the State's water resources from industrial and municipal waste discharges.

Storm Water Program

Discharges of pollutants to storm sewer conveyance systems are significant sources of pollution to surface waters. These discharges are designated by federal law as point source discharges and subject to a NPDES permit. The Boards issue individual municipal separate storm sewer system (MS4) permits, and enroll dischargers under a statewide general industrial storm water permit and a statewide general construction storm water permit.

Chapter 15 Program

Waste discharges to land including treatment, storage or disposal sites, are regulated by the Chapter 15 Program. These include landfills, surface impoundments, waste piles, mining wastes, and land treatment units. Discharges from these facilities may impact water quality, particularly groundwater. The goals of the Chapter 15 Program are primarily preventive yet include a response action component to ensure adequate protection of water quality. Sites are regulated through issuance of WDRs or conditional waivers, enforcement orders or voluntary informal corrective action.

Non-Chapter 15 Program

Under the Non-Chapter 15 Program, liquid waste disposal impoundments and similar land disposal systems for liquid and solid wastes are regulated under WDRs issued by the Boards, under the authority of the Porter-Cologne Water Quality Control Act. These WDRs address many types of waste discharges, including municipal, industrial and commercial sources, which are not otherwise regulated under the NPDES Program or Chapter 15 Program.

The types and numbers of permits or WDRs involved in each of the above programs (as shown in the FY 1999/00 program work plans) are shown in the table below. These numbers change throughout the year as new permits or WDRs are issued and others rescinded.

PROGRAM	WDR OR PERMIT TYPE	NUMBER OF DISCHARGERS	
NPDES	Individual Permits	953	Total = 2194
	General	1241	
Non-Chapter 15	Individual WDRs	3208	Total = 3692
	General WDRs	484	
Chapter 15	Individual WDRs	862	Total = 1168
	General WDRs	306	
Storm Water	MS4	27	Total = 15,048
	General Industrial	9313	
	General Construction	5708	

Compliance Assurance and Enforcement

Compliance assurance and enforcement are integral components of all of the core regulatory programs' activities. Both NPDES permits and WDRs may include a monitoring program to ensure compliance with discharge requirements. The Boards' staff conduct inspections to ensure compliance with permit or WDR conditions. The Boards are authorized to take a variety of enforcement actions to obtain compliance with NPDES permits and WDRs. These enforcement actions may include issuance of cleanup and abatement orders, cease and desist orders, administrative civil liability orders and court action.

Funding History

The degree to which the Boards have been able to carry out their regulatory responsibilities has been largely dictated by available funding. Overall, the Boards' operations' budget has grown substantially over the past ten years, increasing from $93 million in FY 1989/90 to $162 million in FY 1999/2000 (excluding funds for UST claims, State Revolving Fund loans, etc.). However, about $49 million of the $69 million increase has supported important special or bond-funded non-core regulatory programs, such as underground storage tank cleanup and wastewater treatment plants. The use of these funds is restricted to specific activities by statute, grant or contractual agreement. The funds often cannot be used to assist in implementing new requirements, or cannot be redirected to respond to emerging high priority issues.

In FY 1999/2000, the total budget for the core regulatory programs is $44 million, or approximately 26 percent of the total budget for the Boards' operations. A mix of federal funds, General Fund and fees assessed against permittees supports the core regulatory programs. In FY 1999/2000, federal funds support approximately 12 percent of the core regulatory programs, with the remaining 88 percent supported approximately equally by General Fund and fees.

On October 6, 1999, the Governor signed SB 390 (Alpert), which requires the SWRCB to review its current fee structure and report back as part of the needs analysis of the core regulatory programs. This review will build upon a report submitted to the Legislature in 1992 (in response to Supplemental Language to the 1991 Budget Act). That report suggested several options for increasing fee revenues, including increasing the $10,000 cap, imposing new fees for water rights and waste discharge permits, and imposing more broad-based water or sewer-use fees. Subsequent legislation introduced in 1992 to increase the fee cap to $150,000 failed in committee (AB 3693/Chandler). The fee review will consider these options, as well as others, in light of current conditions and the needs analysis.

ESTIMATING CORE REGULATORY PROGRAMS' WORKLOAD

As directed by the Supplemental Language, the focus of the needs analysis is solely on the core regulatory programs. The basic objective of the needs analysis is to define and quantify all of the work that needs to be done in the core regulatory programs to adequately and efficiently protect water quality, and to compare that to the resources currently available. The analysis must encompass work currently performed, as well as work that should be performed, in light of existing mandates and acceptable levels of service. The process of conducting the needs analysis consists of several major steps:

1. Identifying major activities that define the program;

2. Projecting workload (estimating the frequency of each activity);
3. Developing workload standards (determining the average amount of time it takes to perform the activity);
4. Calculating resource needs for each activity (workload projection times workload standard);
5. Calculating total program needs (sum of individual activity needs, plus any overhead costs not attributable to individual activities).

The process of conducting a complete needs analysis for the core regulatory programs is a very large undertaking for the Boards, especially since detailed workload standards do not currently exist. It is a process, however, that is well underway.

Approximately 50 program staff from throughout the State are involved in four teams that are performing the core regulatory needs analysis. Each core regulatory program formed a focussed needs analysis team to evaluate their program issues, with experienced program representatives from each of the RWQCBs and a program manager from the SWRCB. In addition, a 5 person SWRCB project coordination team was established to oversee the broader effort and facilitate the teams. Due to the large workload associated with conducting a detailed needs analysis, the teams have been meeting monthly during FY 1999/00.

1. Identifying Major Activities

To begin, the program teams outlined the categories of Board work that encompass each program. The categories and discrete activities were further reviewed and defined by team participants, and the Boards' management. Each program defined activities that were: (1) discrete and quantifiable, (2) output related, (3) direct program activities, and (4) clearly defined as SWRCB or program oversight functions, as appropriate. Enforcement factors, common to all programs, were developed to ensure enforcement needs are reviewed consistently between programs. Overhead, such as management and clerical support, that cannot be directly attributed, one-to-one, to these discrete activities will be defined statewide and added during the final step of the process.

2. Projecting Workload

The core regulatory programs' major activities define several of the Boards' core business functions: permitting, compliance inspections, monitoring report review, and enforcement. The workload associated with these activities is a function of the number of dischargers regulated in each program (see previous chart in Background section), and the required frequency of each of the activities.

The SWRCB's Administrative Procedures Manual (APM) provides recommended levels or frequencies for many of the core regulatory program activities. The APM, therefore, provides guidance for a portion of the needs analysis. In some cases, U.S. Environmental Protection Agency (U.S. EPA) has provided minimum standards that are used as the base to determine activity adequacy and/or frequency. Where no guidance or minimums exists, or where the guidance/minimum is not reflective of current water quality needs, the teams are developing recommendations for management consideration.

For example, in the past, the Boards have found inspections to be a critical component of an effective compliance assurance program. As such, the existing APM recommends more frequent, as well as more detailed compliance inspections than the U.S. EPA minimum NPDES requirements (which call for annual inspections of major NPDES dischargers and inspections once every five years for minor dischargers.) The APM recommended frequencies vary depending on the type of discharge and the threat to water quality. The APM recommends twelve different inspection frequencies based on these factors.

The APM provides recommendations for the frequency of WDR issuance. Unlike NPDES permits, which must be renewed every five years, WDRs do not expire. The APM therefore reflects best judgment as to when WDRs should be reviewed - at five-, ten- and 15-year intervals, depending on the threat to water quality of the discharge.

Individual permits and WDRs specify the nature and frequency of monitoring reporting. As a result, the report review workload varies by permit or WDR. The existing APM does not provide detail on the appropriate level of effort for monitoring report review. The APM recommends only that monitoring reports should be reviewed within 30 days of receipt, and that the receipt and review should be documented. The APM is being revised to provide additional detail on monitoring report review.

There are additional tasks, besides the core business functions mentioned above, that are conducted by the Boards' staff in the various programs. Activities such as complaint investigation, program training, and outreach are variable and do not have established guidelines for the annual frequency, because of their nature. These activities are difficult to anticipate in projecting workloads, but must be included in the needs analysis to reflect the entirety of each of the core regulatory programs.

The program teams have determined a methodology for projecting the total workload (universe) associated with each activity, based on available guidance or prevailing practice. The activity frequency must be determined so that an annual workload can be calculated. This step includes documenting assumptions and sources of underlying data. For some factors, data management and tracking systems are not in place for calculating the total workload. In these cases, data from another program or some other form of estimation will be used to model the function.

Projecting enforcement workload is problematic since workload is determined by the number of violations that require some type of enforcement action, and violations are by their nature unpredictable. However, some of the core regulatory programs have performed detailed analyses of violations and enforcement actions on an annual basis and will use this to project workload. The remaining programs will perform a similar study or derive other means to project their enforcement workload.

A further challenge is determining the workload associated with new legislative or regulatory requirements. For example, USEPA promulgated Phase II storm water regulations, which will significantly increase the number of regulated storm water dischargers in California. Staff will have to estimate the number of dischargers to which the new regulations apply. Also, SB 709 (Chapter 93, Statutes of 1999) established mandatory minimum penalties for violations of NPDES permits, as of January 1, 2000. This may have a significant impact on the enforcement workload in that program.

The attached matrix provides an example of the steps of the needs analysis process and the work done to-date in the NPDES program to complete step 1 (identifying major activities) and step 2 (projecting workload). Similar charts are used for each of the core regulatory programs.

3. Developing Workload Standards

A workload standard is the average amount of time it takes to perform an activity. The development of workload standards requires that very detailed information be collected from a large number of program staff and collated for analysis. An existing RWQCB time and activity tracking system was modified for the purpose of tracking staff time and associated outputs for developing the cost factors (workload standards). The time-tracking database was modified during the summer of 1999 and staff training on the overall project and use of the time tracking system was conducted at each RWQCB office. Some RWQCB staff began manually tracking time July 1, but the automated system was not fully operational in all RWQCBs until September.

Several hundred staff at all the Boards (including SWRCB) are tracking the time they spend on discrete core regulatory activities to ensure that the data available for analysis is statistically valid and representative of the variations caused by different types of facilities or geographic conditions.

The data being collected for each cost factor will be collated and evaluated by the needs analysis team for each program, and a "standard" for each factor will be determined. The teams will evaluate the data variability and completeness. It will be difficult to assign a single workload standard to some activities in the core regulatory programs (e.g. WDR issuance), however, because time spent is highly variable depending on the controversial nature or complexity of the facility being regulated. Some activities, such as permitting, or siting a new landfill, take months or even years to complete. To mitigate this, many activities are being tracked by facility over an extended time period to allow separation of different types or special cases. This will aid in refining the analysis where timeframes vary widely. In some cases, there may be more than one standard if the data show separate populations or a large range due to geographical differences or complexity. Collection of complete data on some long-term activities may be outside the scope of this needs analysis. Workload standards for some of these activities may need to be estimated and refined over time.

4. Calculating Resource Needs

Once the total annual workload for each task is calculated, and a workload "standard" determined from the collected data, the required staff time will be calculated. Each program team has been documenting their work associated with each step of the process in a Needs Analysis Matrix similar to that shown in Attachment 1 for the NPDES program. These matrices document the objective of each activity, the calculation of the projected workload, and the workload standard developed by the team.

5. Calculating Total Program Needs

The final step in the process is calculating the total need for each core regulatory program, including program-specific enforcement. Staff costs and overhead will be added to arrive at the total estimated task costs. The task and program specific information will be rolled-up to provide the overall statewide need for the core regulatory programs.

SUMMARY

The Boards are making significant progress in the needs analysis of the core regulatory programs. Project teams have been formed for each core regulatory program to focus on this analysis. The Boards' staff from throughout the State are meeting monthly to discuss and develop the needed evaluation. The project teams are closely reviewing the programs' workload, business functions, level of service, workload standards and procedures. Data collection is well underway and initial results are being analyzed. The Boards are on-track to provide the needs analysis by the requested January 1, 2001 date. The complete results of the core regulatory needs analysis effort resource will be reported at that time.

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NPDES PROGRAM
BASELINE NEEDS ANALYSIS

Annual Statewide Workload								Workload Standard	Total Need
Cost Factor Category	Cost Factor (Task)	Task Objective	APM/Guidance Annual Target	Workload Projection Methodology	Data Sources	Total Task Universe	Total Annual Workload	Unit Cost Factor from Time Tracking Data	Annual Need In Hours (Unit Cost Factor x workload)
Permit Issuance	Issue new Major Industrial permit	Meet all State and federal requirements	All complete applications processed and permits issued	*Programs developing workload projection methodology*	SWIM historical data	*TBD*	*TBD*	*Program staff statewide tracking time spent on tasks*	*To be calculated*
	Reissue Major Industrial permit	Meet all State and federal requirements	Reissue every five years		SWIM				
	Issue new major Municipal permit	Meet all State and federal requirements	All complete applications processed and permits issued		SWIM historical data				
	Reissue Major Municipal permit	Meet all State and federal requirements	Reissue every five years		SWIM				
	Issue new minor permit	Meet all State and federal requirements	All complete applications processed and permits issued		SWIM historical data				
	Reissue minor permit	Meet all State and federal requirements	Reissue every five years		SWIM				
	Issue General NPDES permit	Meet all State and federal requirements	Reissue every five years		Program manager files				
	Enroll discharger under General NPDES permit	Complete task within 30 days	All applicants enrolled within 30 days		SWIM				
Inspections	Perform Cat. 1A Inspection	Thorough inspection to determine compliance	Per APM, varies by TTWQ		SWIM and APM				
	Perform Cat. 1B,2,3,4,5&6 Inspection	Determine compliance	Per APM, varies by TTWQ		SWIM and APM				
Investigations	Complaint Investigation & Follow-up	Determine if laws violated	Respond to all complaints		SWIM				
Monitoring/ Compliance	Level 1 DMR Review	Note all violations	Review all DMRs		FY 1998-99 end of year reports				
	Level 2 DMR Review	Determine need for follow-up	DMRs w/violations and annually per facility		SWIM and FY 1998-99 workload				
	Level 3 DMR Review	Determine need for follow-up	Every fifth year		SWIM				
	Prepare QNCR	Record all majors in SNC and disposition	Quarterly for all majors in SNC		SWIM				
Pretreatment	Pretreat. audit	Thorough review of entire pret. Program	Once every five years		Pretreatment program manager				
	Pretreat. Inspection	Review pret. Program	Once each year not audited		Pretreatment program manager				
	Pretreat. program modifications	Review modifications			Pretreatment program manager				

Attachment 1

NPDES PROGRAM
BASELINE NEEDS ANALYSIS

Annual Statewide Workload								Workload Standard	Total Need
Cost Factor Category	Cost Factor (Task)	Task Objective	APM/Guidance Annual Target	Workload Projection Methodology	Data Sources	Total Task Universe	Total Annual Workload	Unit Cost Factor from Time Tracking Data	Annual Need in Hours (Unit Cost Factor x workload)
Casehandling	Permit Oversight (Casehandling)	Resolve all discharger concerns	Reduce time spent per discharger		SWIM				
Enforcement	Informal enforcement	Informal activities to deal with identified violations- from conversations to notice of violation letters			1999 enforcement assessment				
	13267 letters (when used for enforcement)	Formal request for information related to a violation			RWQCB estimate				
	Notice to Comply- NTC	Formal notice issued in the field for minor violations			RWQCB estimate				
	Cleanup & Abatement order	Formal set of requirements needed to clean up and abate the effects of a discharge, issued by EO or RB			1999 enforcement assessment				
	Cease & Desist orders	Formal requirements prohibiting activities issued by EO or RB			1999 enforcement assessment				
	Administrative Civil Liability	Fines imposed for violation, often in conjunction with other enforcement mechanisms			1999 enforcement assessment				
	Time Schedule orders	Formal order for actions to be taken by discharger with time schedule for compliance			1999 enforcement assessment				
	Enforcement follow-up (after complaints/orders issued)	Staff work needed to assure compliance with an enforcement order			RWQCB estimate				
	Referrals to AG, DA, other agency	Staff work needed to support enforcement actions by other agencies			1999 enforcement assessment				
	Third party actions	Provide information or take action related to third party lawsuits			RWQCB estimate				
	Petitions appealing enforcement actions	Provide information needed for SB review of a RB action			RWQCB estimate				