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STATE WATER RESOURCE CONTROL BOARD

WORKFORCE PLAN FRAMEWORK

Submitted By:

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INTRODUCTION

This Workforce Plan has, in light of the gathered data, a three-fold purpose. First, this Plan is to assist the State Water Resource Control Board (WRCB) and the nine regional Water Quality Control Boards (WQCB) (Collectively, hereinafter, referred to as WRCB/WQCB) in building organizational workforce capacities and to assist in building the capacity of individual employees to complete his/her work. Secondly, this Workforce Plan has the potential for enabling employees, through an appropriate division of work and through providing necessary support resources, to achieve consistently higher levels of performance. And, thirdly, this Workforce Plan provides the potential for sustaining continued employee dedication to the Mission of the WRCB/WQCB as a fundamental motivation for employee engagement.

METHODOLOGY

In April of 2006, the State Water Resources Control Board (WRCB/WQCB) contracted with CPS Human Resource Services to provide a framework for developing an organizational Workforce Plan and Succession Plan. This framework would articulate the strengths, weaknesses, opportunities and threats facing the current and future WRCB/WQCB workforce. This framework would enable the WRCB/WQCB to develop strategies for recruitment of staff, training and development of staff, retention of staff and the capture/retention of WRCB/WQCB institutional knowledge.

Organizational Support –

A Task Force was established with one representative from each of the nine Regional Boards and four representatives from the State Board (cf. Appendix A, page 41). The role/responsibilities of the Task Force included:

1. Provide pro-active encouragement of State and Regional Board employees for participation; assist in developing compelling description of need.
2. Prioritize classifications for analysis.
3. Analysis process – assist in gaining participation of incumbents
4. Assist in developing description of current activities regarding workforce development, recruitment, selection and retention.
5. Assist in developing description of current activities regarding succession planning, e.g. knowledge transfer, technology development, etc.
6. Provide input and feedback to consultant as data is assembled, analyzed and put into written report format.
7. Assist in gathering internal workforce statistics.
8. Assist consultant in understanding the organizational culture.

Data Gathering –

Demographics – With the support of WRCB/WQCB Human Resources, WRCB/WQCB employee demographic data was gathered. Due to the looming, nation-wide, potential retirement of Baby Boomers, this data focused upon the current age distribution of WRCB/WQCB personnel. In addition, data was provided for the breakdown of the types of employee separations from the WRCB/WQCB over the last four fiscal years.

Current Retention Activities – Information pertaining to current WRCB/WQCB activities, in the State and/or Regional Boards, related to efforts for employee workforce development, retention and succession planning was gathered (cf. Appendix E, page 61). Primary amongst those activities is the role of the Water Board Training Academy. The Academy's contribution to meeting the needs of the WRCB/WQCB is well-documented (cf. Appendix F, page 65) and receives continued high praise from WRCB/WQCB employees at all levels.

Task-Based Workforce Analysis -

Using the models provided by the California State Personnel Board and the Department of Personnel Administration, a modified Task-Based Workforce Analysis process was conducted at the State Board and at each of the nine Regional Boards. This process provided opportunities to solicit input from WRCB/WQCB employees. This input covered three main areas:

1. Identification of the work being conducted by WRCB/WQCB employees
2. Identification of past and future trends impacting the work of the WRCB/WQCB
3. Identification of the strengths and weaknesses related to WRCB/WQCB employee retention

The members of the Task Force assisted in accomplishing this Workforce Analysis by organizing meeting schedules, providing for meeting rooms, enabling audio conferencing, and in providing employees with information about and motivation for participation in the Workforce Analysis. The WRCB/WQCB employees participated in either small group discussions or one-on-one interviews. In Step One of the Workforce Analysis process, a total of 335 WRCB/WQCB employees participated – 262 from the nine Regional Boards and 73 at the State Board. The 335 employees came from a total of 28 employee classifications (cf. Appendix B, page 3).

Task-based Job Analysis process:

Step One –

- a) Subject Matter Experts (SME) provide, through small group process or one-on-one interview process, a listing of task statements reflective of the work performed in the job/job classification¹
- b) Employees provide information regarding past and future trends affecting the work of the WRCB/WQCB

¹ California State Personnel Board (2003). Merit Selection Manual: Policy and Practices. Section 2200, Job Analysis, p2200.12.

- c) Employees provide information regarding issues related to retention at the WRCB/WQCB

Step Two –

- a) Step One SME participants were provided a template to report a list of Knowledge/Skills/Abilities (KSA) statements reflective of the qualifications required for successful performance in the job classification²
- b) SMEs provide KSA information for entry into the position and KSA acquired through one-the-job training.

The input for Step One from the Regional Board participants was obtained, in person, between October and December of 2006. The input from the State Board participants for Step One was obtained in January of 2007. The input regarding Step Two was obtained via e-mail from January to March of 2007.

² California State Personnel Board (2003). Merit Selection Manual: Policy and Practices. Section 2200, Job Analysis, p2200.16.

OVERVIEW

“When environmental and internal conditions pull a human system out of equilibrium toward the ‘edge of chaos,’ that system becomes capable of astonishing change that can establish a completely new basis for equilibrium.”

Davy & Harris, 2005³

Like many professional service organizations, the WRCB/WQCB is being pulled out of equilibrium by factors both internal and external to the organization. While conducting the internal data-gathering necessary to develop this Workforce Plan, it was discovered that those working within the nine Regional Boards and the State Board are experiencing this dis-equilibrium in real and often personal ways. As will become clear in the discussion of Trends and of Retention, the dis-equilibrium expressed by many of the Workforce Analysis participants is similar to that of other professional service organizations even though the WRCB/WQCB is a State entity.

Professional service organizations, e.g. engineers and architects, found it necessary, beginning in the 1980’s, to focus on “selling hours, increasing billability, decreasing expenses, avoiding risks and collecting receivables” (Davy & Harris, 2005, p. 15). At the same time, they perpetuated, “deeply entrenched views about whom they worked for, how they did their work, and who was in their” organizations (p. 9). As a result of this transition, the professionals within these organizations increasingly saw their professional expertise being eroded by:

- the need to conduct administrative tasks,
- the out-sourcing of work,
- the demand for client-participation,
- the need to provide non-traditional services,
- the low priority given to professional development, and
- the challenge to their work brought through litigation.

These characteristics of the experience of professional service organizations are, also, the constantly expressed characteristics of the experiences of those WRCB/WQCB employees whom provided input for the development of this Workforce Plan.

The ability of professional service organizations to move beyond this situation rests in the development of a new business model. A business model provides, “a holistic expression of how an enterprise works – how it delivers value to its customers and what it receives in return; it describes an organization’s recipe for success” (Davy & Harris, 2005, p. XXII). A new business model, which provides professional service organizations the opportunity for sustainability and success while adding professional value to those whom they serve, includes:

- the opportunity to heighten professional, knowledge-based skills in order to respond to increasingly complex needs
- the opportunity to use information technology as a primary tool for reshaping how business is accomplished

³ Davy, K. V. & Harris, S. L. (2005). *Value Redesigned: New Models for Professional Practice*. Atlanta, GA: Greenway Communications, LLC.

- the opportunity to integrate technical work with the adaptive work of collaborating with stakeholders
- the opportunity to intentionally customize and segment service offerings, and
- the opportunity to build alliances and networks for a more holistic approach in responding to stakeholder needs.

Consciously or unconsciously, the WRCB/WQCB is operating out of a business model that has been shaped by its historical roots as an engineering organization focused on point-source pollution, by the ever-expansive list of the non-point sources of water quality degradation, by political and economic gyrations, by complex and overlapping governmental jurisdictions, and by a continually mounting body of accountabilities that are lacking in commensurate resources. Fundamentally, this evolution has created and is creating, within the WRCB/WQCB, an unresolved either-or tension between:

- retrenchment to a function-based, professionally-focused organizational structure versus a generic sense that everyone can/is doing the same work no matter what their professional background
- a program approach versus a watershed approach to business processes
- a prioritization of enforcement/regulation versus a prioritization of facilitating public participation, and
- a ‘we can do everything asked of us’ approach versus a ‘we are doing nothing really well because of responding to brush fires, the over-whelming backlog of cases, and a priority-of-the-month sense of futility.’

The disequilibrium created by these tensions is providing the WRCB/WQCB the opportunity, at this time in its history, to proactively and intentionally develop the business model that assures the future delivery of the value the WRCB/WQCB brings to the people of California.

Though dis-equilibrium is experienced by those WRCB/WQCB employees participating in the Workforce Analysis, they also clearly indicated that the context in which the WRCB/WQCB currently exists exhibits characteristics similar to those described above for professional service organizations moving towards a new business model. Their message was:

- increasingly complex challenges from non-point source pollution and emerging contaminants will require heightened professional, knowledge-based skills
- the successful use of technology for information and data management is the only way for the WRCB/WQCB to meet future needs
- public participation is necessary for solution to non-point source pollution, control of emerging contaminants and the future use of water by an exploding population
- customization of solutions to water quality and water quantity issues is required due to the complex system of stakeholders
- the WRCB/WQCB can not be the sole policeman of water quality for the future, building alliances with other stakeholders will be the norm.

At this point in the history of the WRCB/WQCB, an intentional exploration of the options available for an operative business model is opportune.

INPUT FOR DEVELOPING A NEW BUSINESS MODEL

A workforce plan should be seen as a tool for operationalizing an organization's business model, which is aligned with the organization's Mission. The workforce plan is a description of how the organization is garnering the workforce needed to conduct its business, to do the work of the organization. Consequently, it is the work of the organization that drives the make-up of the workforce.

Throughout the Workforce Analysis, participants, by classification, were challenged to develop a list of tasks that described the work they performed on a regular basis. Developing these lists met frequent resistance. As professionals, individuals were legitimately reluctant to reduce their professional expertise to what might be perceived as a list of tasks to be completed. Nevertheless, the process provided a snapshot of the work undertaken by WRCB/WQCB employees. At the risk of over-simplification, but for the sake of generating discussion, one could review the list of tasks generated in the Workforce Analysis and discover two patterns about the work of the WRCB/WQCB.

First, a substantive portion of the work of the WRCB/WQCB is about the analysis of technical data to determine compliance with water quality standards. The standards have been set through Federal and State environmental laws, regulations, policies and procedures as well as through the body of standards developed by the WRCB/WQCB through such tools as Basin Plans, Total Maximum Daily Load (TMDL) reports, and Regional/State Board decisions. The data generated by discharger self-monitoring reports, site examinations, permit requirements, etc. is analyzed by the WRCB/WQCB to determine compliance, i.e. does the data indicate that the current water quality is within the standards. Or, the standards are applied when reviewing new permit applications, drafting permits, determining enforcement actions, etc. Much of this work is analytical, i.e. individuals comparing current technical data with current standards. Unfortunately, the lack of a comprehensive, functional data and information management system complicates the ability to efficiently accomplish and the ability to readily delegate this analytical work.

The distinctive nature of this analytical work was well expressed by incumbents in the Sanitary Engineering Associate classification who are not professional engineers, geologists or environmental scientists. The work they described was that of reading technical reports, determining if the reported data fell within in the prescribed standards, and prescribing the appropriate follow-up response, e.g. formal enforcement action, levying of fines, negotiating settlements, etc. in the case of violations. This work is an analysis of current conditions in relation to current standards.

Second, a substantive portion of the work described in the list of tasks created in the Workforce Analysis is about proactively engaging the professional expertise, the knowledge capital of the WRCB/WQCB's Environmental Scientists, Water Resource Control Engineers, and Engineering Geologists with the increasingly knowledgeable, motivated, and diverse system of stakeholders vying for a portion of control over the quantity or quality of California's limited water supply. Doing this work necessitates the ability to articulate, define, and substantiate the scientific and technical components of environmental impacts across a wide spectrum of

sciences. This is the work of discovering and understanding degradations, establishing standards, discovering solutions, discovering beneficial uses, etc. – being able to articulate why there is a water quality problem. This work requires both scientific and technical expertise. In addition it requires the ability to engage, through public participation, not just the science, but also those stakeholders impacted by the degradations, the standards, the solutions and the beneficial uses for water quality.

This scientific, technical work was well expressed in the Engineer, Geologist and Environmental Scientist classifications as they described how the successful accomplishment of their work required the ability to understand and to articulate that understanding of the complex causes of water quality degradation. Further, their scientific and technical knowledge, skills and abilities are necessary for the WRCB/WQCB to be experienced as a partner with other public sector entities. With these entities, the WRCB/WQCB is necessarily involved in creating credible responses to the constantly changing and increasingly challenging needs and demands being placed upon California's water resources by facilitating public participation.

Though there is, necessarily, an over-lap between these two bodies of work, they are, in reality, very different bodies of work. Historically, when the focus of the WRCB/WQCB was primarily on point-source pollution issues, the difference was not so pronounced. Currently, due to the sheer volume of cases, the increased complexity added by non-point-source pollution issues, and the necessity of public participation in pursuing water quality solutions, the differences between these two types of work is a challenge with which the WRCB/WQCB must grapple. Currently, individual WRCB/WQCB employees are attempting to do both - to continue that business model would be inefficient and ineffective. In addition, garnering the workforce needed to continue that business model will be increasingly difficult.

Recommendation #1: *As clear as distinction as possible must be articulated between the analytical work that monitors compliance with water quality standards and the scientific/technical work that demonstrates the WRCB/WQCB's understanding of and leadership in responding to challenges related to water quality degradation and the use of California's limited water supply.*

Recommendation #2: *Upon completion of Recommendation #1, an exploration of the appropriate classifications needed to accomplish each type of work can be undertaken.*

PROFESSIONAL, TECHNICAL EMPLOYEE SUPPLY/DEMAND

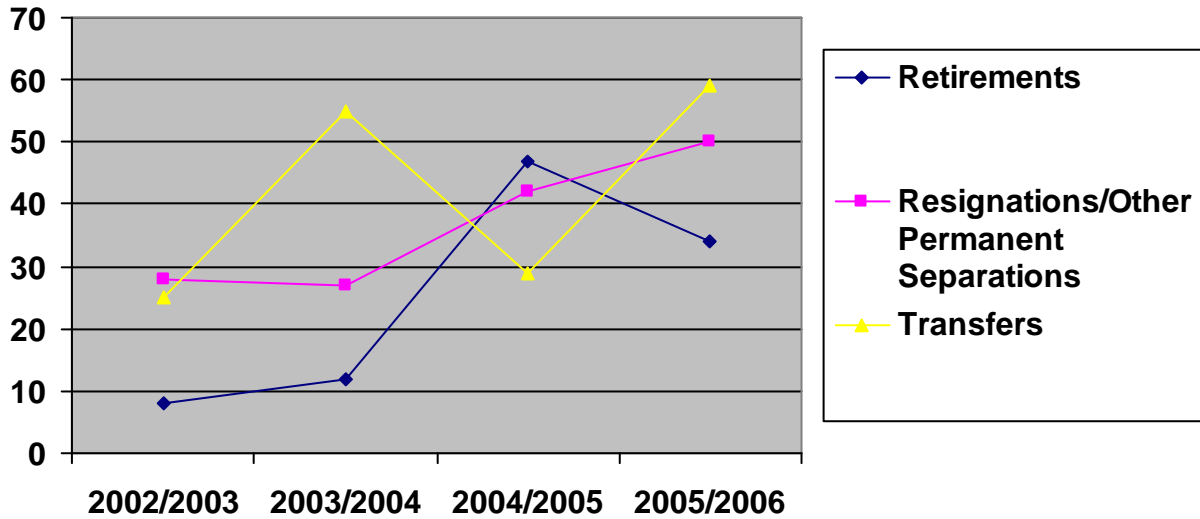
DATA GATHERED

WRCB/WQCB Demographic Data

All California State agencies are currently confronted with the challenges presented by the approaching retirement of the Baby Boomer generation. This reality contributed to the motivation for developing this Workforce Plan by the WRCB/WQCB. Using the age range of 50 and over as the benchmark for determining the number of employees reaching the minimum retirement age over the next 5-8 years, data demonstrating the impact on the WRCB/WQCB is presented, in summary, in the following table. A much more detailed presentation of this demographic data is available in Appendix C, page 45.

Entity	Percentage Age 50 and Higher
All State of California Employees n=208,704 employees (Data as of September 30, 2005)	35.13
Water Resource Control Board n= 1,470 employees (All Data as of June 9, 2006)	36.3
State Water Board Employees n = 605	39.1
Regional Water Board Employees n = 865	34.3
Region 1	38.8
Region 2	33.3
Region 3	31
Region 4	36
Region 5	33.2
Region 6	35.2
Region 7	25.1
Region 8	41.1
Region 9	31.2
All Engineer Classifications n = 386	32.9
Water Resource Control Engineers Ranges A-D n = 275	24.7
Senior Water Resource Control Engineers n = 71	45
Supervising Water Resource Control Engineers n = 27	62.9
Principal Water Resource Control Engineers n = 13	76.9
All Geologist Classifications n = 250	41.2
Engineering Geologists Range A-D n = 186	34
Senior Engineering Geologists n = 58	58.6
Supervising Engineering Geologists n = 6	83.3
All Environmental Scientist Classifications n = 296	29.7
Environmental Scientists Range A-C n = 219	22.4
Senior Environmental Scientist n = 32	31
Staff Environmental Scientist n = 31	58
Environmental Program Manager I and II n = 14	78.6
CEA n = 17	41

Data describing the total number of employee separations, for any reason, from the WRCB/WQCB workforce indicates that retirement is not the only cause for concern. For three of the four fiscal years from 2002 – 2006, transfers to other State agencies and permanent separations/resignations (other than retirement) each numbered more than the number of retirements. More detailed information is available in Appendix D, page 58. The following chart depicts the trends in employee separations.



Cumulative, the WRCB/WQCB lost 8.8% of its workforce in 2005-06 due to retirements, resignations and transfers. This data reflects the experience of other State agencies, i.e. State employment is losing its competitive advantage and State agencies frequently compete with one another for the same employees. As will be indicated in the discussion of retention and trends, substantive challenges face the WRCB/WQCB leadership in sustaining the current workforce.

Future Employee Supply for Professional Classifications

Because of the critical nature of the following data, it is contained in the body of this Workforce Plan rather than the Appendix.

Bachelor's Degrees Conferred by Degree-Granting Institutions Nation-Wide

Discipline	2000-01	2001-02	2002-03	2003-04
Agriculture and Natural Resources	23,370	23,331	23,294	22,835
Engineering	58,315	59,627	62,611	63,558
Civil Engineering	7,588	7,665	7,835	7,827
Geology and Earth Sciences	3,495	3,449	3,381	3,312
Physical Sciences and Science Technologies	17,919	17,799	17,940	17,983

Data from 2005 Digest of Education Statistics Tables and Figures, National Center for Education Statistics

Bachelor's Degrees Conferred California State University System-Wide

Discipline	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Biological Sciences	1,897	1,919	1,905	1,802	1,930	2,075
Engineering	2,644	2,878	2,945	3,099	3,298	3,792
Physical Sciences	496	500	498	492	516	598

Data from 2006-06 Statistical Report, California State University

Bachelor's Degrees Conferred at California State University, Sacramento

Discipline	2001-02	2002-03	2003-04	2004-05	2005-06
Civil Engineering	44	51	57	45	52
Environmental Studies	22	33	34	27	22
Geology	9	7	11	8	17

Data from University Factbook, Sacramento State Office of Institutional Research

Bachelor's Degrees Conferred University of California System-Wide

Discipline	2003-04	2004-05	2005-06
Agriculture, Natural Resources & Conservation	960	968	947
Engineering	3,027	3,318	3,405
Physical Sciences	698	829	837

Data from The University of California Statistical Summary of Students and Staff, Fall 2006

Bachelor's Degrees Conferred at University of California, Davis

Discipline	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
College of Agriculture & Environmental Sciences	1,246	1,300	1,311	1,204	1,214	1,169
Engineering	505	467	507	558	600	573

Data from October 5, 2006 UC Davis Facts

Bachelor's Degrees Conferred at California Polytechnic State University

Discipline	2000-01	2001-02	2002-03	2003-04	2004-05
Earth Science	0	0	9	11	9
Environmental Horticultural Science	39	57	51	39	28
Environmental Mgmt & Protection	0	0	0	1	6
Forestry and Natural Resources	25	41	37	30	33
Soil Science	13	14	12	10	11
Civil Engineering	68	80	79	111	84
Environmental Engineering	17	21	14	19	15

Data from Cal Poly Fact Book 2005-2006

Employment by Occupation, 2004 and Projected 2014

Title	2004	2014	Percent Change	Total Job Openings Due to Growth & Net Replacements
Civil Engineers	237,000	276,000	16.5	77,000
Environmental Engineers	49,000	64,000	15	23,000
Soil and Plant Scientists	17,000	19,000	13.9	5,000
Biological Scientists	77,000	90,000	17	37,000
Environmental Scientists & Specialists, including Health	73,000	86,000	17.1	26,000
Geoscientists, except Hydrologists & Geographers	27,580	29,866	8.3	7,000
Hydrologists	8,000	11,000	31.6	4,000
Conservation Scientists	19,000	20,000	6.3	7,000
Foresters	13,000	14,000	6.7	5,000

Data from Monthly Labor Review, U.S. Department of Labor, Bureau of Labor Statistics, November 2005

Employment by Occupation, 2004 and Projected 2014, Percentage in State Government

Title	2004		2014		Percent Change
	Number	%	Number	%	
Civil Engineers Total	237,000	100	276,000	100	16.5
State Government Total	36,146	15.23	40,103	14.50	10.9
Environmental Engineers	49,000	100	64,000	100	30
State Government Total	5,883	11.94	7,084	11.06	20.4
Soil and Plant Scientists	17,000	100	19,000	100	13.9
State Government Total	2,329	13.75	2,857	14.82	22.7
Environmental Scientists & Specialists, including Health	73,000	100	86,000	100	17.1
State Government Total	21,785	29.69	25,088	29.19	15.2
Geoscientists, except Hydrologists & Geographers	27,580	100	29,866	100	8.3
State Government Total	3,621	13.12	4,084	13.67	12.8
Hydrologists	8,000	100	11,000	100	31.6
State Government Total	1,216	15.12	1,468	13.87	20.7
Conservation Scientists	19,000	100	20,000	100	6.3
State Government Total	3,093	16.65	3,428	17.35	10.8
Foresters	13,000	100	14,000	100	6.7
State Government Total	3,606	27.36	3,998	28.43	10.9

Data from U.S. Department of Labor, Bureau of Labor Statistics, Industry-Occupation Employment Matrix: Occupation Report

Occupational Outlook

Occupation	Outlook
Environmental Scientist and hydrologists	Strongest job growth will be in the private-sector consulting firms
Engineers	Overall engineering employment will grow as fast as the average for all occupations. Civil engineers will see average employment growth. Employment opportunities for environmental engineers will grow much faster than all other occupations.
Geoscientists	Employment growth will grow more slowly than all other occupations; but, the low number of qualified graduates and large number of retirements will provide good employment opportunities

Data from U.S. Department of Labor, Bureau of Labor Statistics, Occupational Outlook Handbook, 2006-07 Edition

DATA ANALYSIS

Because of the various methodologies used in the collection of data related to occupational definitions, academic degrees, and academic majors and disciplines, analysis of the data gathered is challenging. Nevertheless, some important patterns do emerge.

Environmental Scientists and Geologists:

Based upon degrees conferred nation-wide, for the technical skills important to the work of the WRCB/WQCB, i.e. engineers, geologists and environmental scientists, the pool of potential candidates remains flat for geologists and environmental scientists. This same pattern is reflected in the California State University system, the University of California system and at Cal Poly.

Employment in State government, as a percentage of employment within occupations related to environmental science and geology, is projected to remain stable through 2014. At the same time, job growth for Environmental Scientists is projected to increase in the private sector. And, employment for Geologists is expected to be competitive due to retirements and the lack of qualified candidates. Consequently, recruitment of Environmental Scientists and Geologists and retention of incumbents in these disciplines will grow as a challenge for the WRCB/WQCB.

Engineers:

Nation-wide, the number of degrees conferred in engineering increased 8.9% from the 2000-01 TO 2003-04 academic years. The nation-wide increase in that same time-frame for civil engineer degrees was 3%. The percentage increase for degrees conferred in engineering was significantly higher in the California State University system (43% from 2000-01 to 2005-06) and slightly higher in the University of California System (12.5% from 2003-04 to 2005-06). Data for degrees conferred in civil engineering at California State University, Sacramento indicates an 18% increase from

2001-02 to 2005-06. Cal Poly is the only academic institution reviewed that provided an indication of degrees conferred for environmental engineering. The number of degrees conferred in that program was flat – going from 17 awarded in 2000-01 to 15 awarded in 2004-05

The Bureau of Labor Statistics provides current and projected employment statistics for both civil engineers and environmental engineers. Employment of each within State government, as a percentage of the total employment of civil and environmental engineers, is projected to slightly decrease from 2004 to 2014. Significant numbers of job opening in each area are anticipated in 2014 with average employment growth for civil engineers and much faster than average employment growth for environmental engineers. Consequently, though the pool of candidates for Water Resource Control Engineers at WRCB/WQCB seems to be stronger in California than nation-wide, recruitment and retention of such subject matter experts will be a challenge.

Recommendation #3: *Current data indicates that a shrinking pool of qualified candidates in the disciplines of environmental science, geology, and civil/environmental engineering will aggravate WRCB/WQCB efforts at recruitment. Consequently, every effort must be made by WRCB/WQCB leadership to maintain the competitive advantage that comes with State employment, the employee commitment related to the Mission of the WRCB/WQCB, and a clarification of the work for which these subject matter experts are needed.*

Recommendation #4: *Effort must be focused on conducting employee exit interviews and collation of the gathered data in order to discover the specific reasons for the increasing number of transfers and permanent resignations of WRCB/WQCB employees, especially in the technical classifications.*

TRENDS ANALYSIS

DATA GATHERED

Included in Step One of the data-gathering process of the Workforce Analysis all participants were asked to respond to two questions:

1. What are trends from the last 5-8 years affecting the work of the Board – the work being done, availability of resources to do the work, or emerging water quality issues?
2. What are trends on your radar screen for the next 5-8 years that will potentially significantly impact the work of the Water Board – the work being done, availability of resources to do the work or emerging water quality issues?

Input from twelve classifications, related to all levels of the Environmental Scientist, Water Resource Control Engineer and Engineering Geologist professions, is detailed in Appendix G, page 71. This input can be organized into the eleven categories of:

- Mission Focus
- Workload
- Emerging Issues
- External Stakeholders
- New Skills
- Changing Business Model
- Basic Documents
- Data/Information Management
- Personnel
- State/Federal and State Agency/State Agency
- State Board/Regional Boards Relationship

If a particular input topic is cited by a majority of the classifications (seven or more) it was considered note worthy. Within each category, noteworthy input topics include (with numbers indicating frequency of response by classification):

- Mission Focus
 - Movement from a primarily engineering organization focused on point-source pollution to a more diverse employee base addressing non-point-source pollution, land use, water rights, etc (10)
 - Increased focus on water rights issues (9)
 - Increased amount of litigation (9)
 - More decisions politically driven (8)
 - Growing population impacting water quality and quantity (8)
 - Continued need for science-based decisions (7)
- Workload
 - Unfunded mandates (9)
 - Greater workload without prioritization by leadership (9)

- Loss of personnel and/or personnel positions results in remaining personnel taking on more work (9)
- Increasing workload of cases that are complex and controversial (9)
- Increased amount of time doing administrative and clerical work as well as data entry (7)
- Emerging Issues
 - Emergent pollutants in water that impacts air quality, human health, etc. (9)
 - Need to be more proactive regarding emergent contaminants (7)
 - Listing of emerging issues, e.g. bio-terrorism, abandoned mines, salt levels in soil, agriculture related issues, pharmaceuticals, dry cleaning, bacteria, invasive species, habitat protection, etc. (7)
- External Stakeholders
 - Increasing need for skills to facilitate public participation (8)
- Changing Business Model
 - Increasing use of contracted services – rather than growing the Agency (9)
- Basic Documents
 - TMDL Implementation was not prepared for in an adequate way, i.e. expense, monitoring, management, etc (9)
 - TMDL preparation has taken far more resources than originally anticipated – more time to create, more sophisticated stakeholders, increasing public participation and need for peer review. Complexity is not understood by leadership (8)
 - There is an on-going, unresolved internal conflict between a watershed approach and a program approach to conducting the work of the Board (8)
- Data/Information Management
 - Increasing need to rely on a data management system, yet a satisfactory system is not in place (11)
 - Technology is needed for the Board to accomplish its work (10)
 - Increasing reliance on data management systems to provide information to an increasingly diverse number of stakeholders (8)
 - Movement from IT in the Regional Boards to centralized IT has not served the Board very well (7)
 - The Board collects and dischargers provide huge amounts of data but no there is no effective data management system to use the data (7)
- Personnel
 - There is continued confusion over the right mix of engineers, geologists, and environmental scientists (7)
 - Loss of institutional knowledge (7)

- State/Federal State Agency/State Agency
 - The Water Board is not proactively advocating its Mission to other State agencies (7)
- State Board/Regional Boards Relationship
 - Lack of clear coordination and consistency of policy implementation, when appropriate, between State Board and Regional Boards (8)
 - Protracted contracting processes (7)

DATA ANALYSIS

Based on this data, discussion will follow regarding the categories of Mission Focus, Data/Information Management, Workload, and Personnel.

Mission Focus:

"The State Board's mission is to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations."

The Mission of the WRCB/WQCB is two-fold:

- Part One - to preserve, enhance and restore water quality
- Part Two - to ensure allocation and efficient use of water.

As will be described in the discussion of Retention, for the employees participating in the Workforce Analysis, the clarity of Part One of the Mission of the WRCB/WQCB is a primary motivating factor for their work. Even the trend within the WRCB/WQCB of moving from a point-source pollution focus to an enlarged focus that included non-point-source pollutions did not deter an increasingly diverse professional staff's dedication to preserving water quality.

However, as indicated in the gathered data regarding Trends, an increasing amount of the work of the WRCB/WQCB relates to Part Two of the Mission. As a result, concerns about Part Two of that Mission are high amongst professional employees at all levels of the organization. These concerns arise because of the fundamentally different nature of the types of decisions necessary for implementing Part Two of the Mission. While water quality can be assessed by comparing current water quality to current water quality standards, the allocation and efficient use of water involves water rights, land development, population growth, economic impact analysis, risk assessment, negotiated settlements, etc. Decisions about water quality are based in clearly defined standards set by laws, regulations, policies and procedures; however, decisions about water use and allocation are perceived to be driven by negotiated settlements, political pressures/compromises, economic considerations, risk tolerance, etc. The background and training of the WRCB/WQCB professional employees prepared them for Part One of the Mission, but not necessarily for Part Two.

Recommendation #5: *The continued acknowledgment of and reference to the Mission of the WRCB/WQCB as the State Board, Regional Boards and Executive Leadership of the WRCB/WQCB articulate the rationale and purpose of their decisions will enable WRCB/WQCB employees to own those decisions as Mission-driven.*

Recommendation #6: *For the WRCB/WQCB workforce, a transparency in decision-making by the State Board, Regional Boards and the Executive Leadership of the WRCB/WQCB would be enhanced through the acknowledgement of and discussion of the political dimensions of those decisions and that leadership.*

Data/Information Management:

Analysis of the Trend data indicates that gaining control of data and information management is necessary for the current and future work of the WRCB/WQCB. Successive iterations of a database capable of successful data-entry, data storage, and data functionality have not met the needs for data and information management. The current CWIQS version has neither the support nor the confidence of those participating in the Workforce Analysis. The absence of a comprehensive data/information management system contributes to inefficiency and ineffectiveness of the work of the WRCB/WQCB in significant ways. This includes, but is not limited to, the following:

- Increased vulnerability of the institutional memory of the WRCB/WQCB because no one remembers which box in storage contains the paper trail for a particular case
- Increased vulnerability of the institutional memory of the WRCB/WQCB as those who know the unrecorded details of particular cases leave the organization
- Continued duplication of work as professional staff working in one program area develop data already available but unknown to them
- Inability of the WRCB/WQCB professional staff to have access to a comprehensive picture of all the data available for a particular geographic location, a particular discharger or a particular mix of data points
- Inability, at a very basic level, to quickly and easily monitor whether water quality data received from dischargers is within existing water quality standards
- Inability to facilitate public access and public participation in the work of the WRCB/WQCB due to the inaccessibility of requested data
- Inability to effectively delineate between work requiring the focus of professional staff and work requiring the focus of data analysis for the purposes of monitoring compliance of existing water quality standards.

Recommendation #7: *The highest of priority must be given, by the Executive leadership of the WRCB/WQCB, to the development and implementation of a comprehensive data and information management system.*

Recommendation #8: *Adequate support staff for implementing a comprehensive data/information management system should be provided. This should include the potential use of a large number of temporary data-entry persons in order to bring the data-base to operational levels.*

Workload:

As will also be discussed further under Retention, the workload for the WRCB/WQCB employees has grown phenomenally. This trend is not unique to the WRCB/WQCB, for many California State agencies describe similar experiences. And, the WRCB/WQCB employees are not naïve to the reality of the need to do more with less within State government. At the same time, research indicates that excessive workload is the primary reason for negative emotions towards the workplace.⁴ Additionally, the annual workforce study by Randstad Work Solutions reveals that excessive workload is cited by 16% of surveyed employees as the reason for unplanned absenteeism. Amongst younger employees, the number jumps to 33% as the reason for unplanned absenteeism.⁵ If WRCB/WQCB leadership ignores or trivializes this trend of the increasing workload, the ability to recruit and retain its workforce will diminish.

The Workforce Analysis participants provided, for this category of Trends, the largest number of descriptors as to how the trend is experienced (cf. Appendix G, page 71). As indicated above, five of those descriptors received mention across all classification levels and professional backgrounds. These five descriptors can be analyzed thus:

1. The unending stream of unfunded mandates is seen as a primary reason for the increased workload. The mandates are recognized as having legitimacy. It is the lack of commensurate resources that creates the burdensome workload.
2. Leaders of the WRCB/WQCB are perceived to be unable or unwilling to advocate on behalf of the organization to receive adequate resources for the workload. Leaders of the WRCB/WQCB are perceived as being unable or unwilling to provide leadership in acknowledging, prioritizing and managing the flow of work to be undertaken by employees.
3. The loss of personnel, the loss personnel positions, and the personnel vacancy rate, though understood in times of State budget crisis, is perceived more as a demonstration of poorly administered State personnel hiring procedures, irrational budgetary games and confusion about the personnel needed to accomplish the work.
4. The nature of emerging contaminants, the systemic nature of non-point-source pollution, the increased need to constructively engage stakeholders in achieving solutions, and the need for sound, science-based decisions that will withstand challenge are all indicators of the growing complexity of and possible controversial nature of the work of WRCB/WQCB employees.
5. The lack of a comprehensive, functional data/information management system blurs, unnecessarily and inefficiently, the boundaries between scientific/technical work, analytical monitoring work, and administrative/clerical work.

⁴ Towers Perrin (2003). *Working Today: Exploring Employees' Emotional Connections to Their Jobs*.

⁵ Randstad Work Solutions (2006). *2006 Employee Review*.

The adverse impact of an ever increasing workload is evident in nation-wide research and in the everyday life of the WRCB/WQCB. Legitimate workforce planning must seek to acknowledge and address this adverse impact. Accountability for providing adequate resources and for the high-level prioritizing of workload, in light of limited resources, is a responsibility of the leadership of any organization. Distribution of resources and implementation of priorities is the responsibility of the organization's levels of management.

Recommendation #9: *Ownership of the responsibility for providing adequate resources for conducting the work of the WRCB/WQCB must be embraced by the members of the State Board, members of each Regional Board and the Executive Leadership of the WRCB/WQCB.*

Recommendation #10: *Ownership of the responsibility for providing leadership in prioritizing the work to be accomplished by employees must be embraced by the members of the State Board, members of each Regional Board and the Executive Leadership of the WRCB/WQCB. Clear articulation of and consistent adherence to those priorities should be made evident to WRCB/WQCB employees.*

Personnel:

The generally acknowledged quandary of continued confusion over finding the right mix of engineers, geologists, and environmental scientists is expressed, not just by those responsible for the recruitment and selection of personnel, but by all levels of employees. It is seen as a trend accentuated over the last two years and as a trend potentially defining the organization's future. Adding to this quandary is:

- the increasing negative impact of the lack of internal wage equity
- the gap between job descriptions and classification descriptions, i.e. the perception that employees in different classifications are doing the same work
- a marked increase in the demand for performance measures that are perceived by employees not only as 'bean counting' but also counting the wrong beans
- a growing gap between the technical staff and the administrative staff in terms of effectiveness and efficiency
- the lack of a clear distinction, as discussed above, between the types of work being conducted by WRCB/WQCB employees.

Options advanced for the solution of this quandary range from retrenchment back to a time of organizational control by engineers, to the creation of a new generalist classification that would replace the professional classifications for engineers, geologists and environmental scientists, to a path of least resistance characterized by hiring only environmental scientists because they are perceived to be more abundant and cheaper. All of these options presuppose the continuation of the existing business model out of which, consciously or unconsciously, the WRCB/WQCB is working. Each of these options suggests that the make-up of the workforce

determines the work-to-be-done rather than having the work-to-be-done determine the workforce.

Recommendation #11: *Through the process of implementing Recommendation #1 and Recommendation #7 the WRCB/WQCB has the opportunity to more clearly and closely align segments of the work-to-be-done with an appropriate segment of the workforce. Creating this alignment will reveal not only the appropriate integration of geologists, engineers and environmental scientists, but also the appropriate inclusion of other scientific subject matter experts, forms of legal counsel, data/information management personnel and administrative staff. The inclusion of these additional resources will contribute to overcoming gaps in the current make-up of the WRCB/WQCB workforce.*

Other Trends:

Analysis of the remaining eleven categories of trends leads to the following recommendations:

Recommendation #12: *The growing list of emergent contaminants requires implementation of Recommendations #5 and #10. Through these recommendations, the State Board, the Regional Boards, and the Executive Leadership of the WRCB/WQCB will have the opportunity to provide WRCB/WQCB employees with leadership and guidance as to the appropriate role and responsibility of the WRCB/WQCB pertaining to the broader human health issues related to emerging water quality contaminants or pollutants.*

Recommendation #13: *Openness to the use and development of public participation knowledge, skills and abilities should be included in the recruitment and selection of employees as well as the on-going on-the-job training provided by the Training Academy and by Regional Boards. Training in the facilitation of group processes should be available to all WRCB/WQCB employees involved in public participation activities.*

Recommendation #14: *Clarification, by the WRCB/WQCB Executive Leadership, of the current and future role of contracted services in accomplishing the work of the WRCB/WQCB will greatly assist employees in understanding boundaries between their own work and that of contractors. This clarification should include a description of quality standards expected of contractors; and, it should include a description of the processes WRCB/WQCB*

employees are to follow when sub-standard quality is provided by a contractor.

Recommendation #15: *The implementation of Recommendation #10 provides the opportunity for a much delayed honest discussion of and ownership of both the conceptual and the practical implications of developing and implementing Total Maximum Daily Load reports.*

Recommendation #16: *The Executive Leadership of the WRCB/WQCB, and the State and Regional Boards as appropriate, should advocate for immediate improvements to the current, protracted contracting process – both as it pertains to the WRCB/WQCB and to the State. The current status of the contracting process needlessly jeopardizes resources available to the WRCB/WQCB.*

RETENTION

Retention of WRCB/WQCB employees, in the face of the possible of loss of 36% of the workforce to retirement in the next 5-8 years, must be a priority for all WRCB/WQCB Board members, executives, managers and supervisors. The loss of members of the WRCB/WQCB workforce due to retirement is further aggravated by a two year increase in the number of permanent separations and the number of transfers from the WRCB/WQCB to other positions within State service. The candid and assertive response from the interview participants in the Workforce Analysis indicated that WRCB/WQCB employees are keenly aware of the factors impacting their retention.

Input was requested from WRCB/WQCB employees related to three questions:

1. What is the Water Board currently doing to retain employees such as yourself?
2. What more could the Water Board be doing to retain employees such as yourself?
3. What is the Water Board be doing to discourage retention of employees such as yourself?

A Summary of Retention Input can be found in Appendix H, page 80. The input received consistently fell into two main areas with specific factors emphasized in each. The two main areas were:

1. retention issues related to State employment
2. retention issues related to WRCB/WQCB employee.

State Employment:

- Retirement benefits
- Health care benefits
- Pay increases
- Holidays

Consistently the WRCB/WQCB employees indicated that being a part of State service (as opposed to working for WRCB/WQCB) was a major influence on their retention. There was a frequently described willingness to accept lower pay in exchange for health and retirement benefits, as well as a better work-life balance than that found in the private sector. At the upper levels of WRCB/WQCB management, investment in the State retirement system was a primary retention factor (both positively and negatively). At the same time, there was a frequently expressed concern about a perceived trend towards the erosion of the State's commitment to sustaining health and retirement benefits for State employees.

The Geologists and Engineers expressed gratitude for recent and future pay increases. The expressed perception was that these increases were the work of their bargaining units as opposed to any advocacy on the part of the WRCB/WQCB.

Recommendation #17: *State employment benefits – especially health and retirement benefits – are a primary recruitment and retention resource and should be championed by WRCB/WQCB leadership. For State service to remain at all competitive with the*

private sector and other government entities, these benefits must be sustained.

Water Board Employment:

- WRCB/WQCB Mission
- Pay equity
- Career Development
- Recognition
- Work/life balance
- Work load
- Continuing Education
- Professional Development
- Work environment

Of the twelve primary classifications participating in the Workforce Analysis, employees in eight expressed the perception that the WRCB/WQCB, per se, was/is doing little to support employee retention, i.e. “I work here in-spite of the WRCB/WQCB leadership.” This, in and of itself, is a significant perception. Nevertheless, many retention ideas were surfaced in the Workforce Analysis interview process.

WRCB/WQCB Mission

As presented in the analysis of Trends, the two-fold Mission of the WRCB/WQCB is important to the WRCB/WQCB workforce. In almost every group or one-on-one interview, dedication to the first half of the Mission of the Water Board, i.e. safe-guarding water quality, provided the fundamental reason for employee retention. Dedication to improving water quality provided both the motivation for and purpose for the day-to-day work being done by individuals and the overall effort that individuals contributed to the collective effort. WRCB/WQCB employees are dedicated to safe-guarding water quality for the people of California. Though described as a looming trend, the second half of the Mission, i.e. the proper allocation and efficient use of water resources, was never described as a motivator for retention

At the same time, as was frequently expressed as a trend, clarity of the Mission is perceived as being under attack. Confusion about the Mission of the WRCB/WQCB is increased by:

1. The perception of constantly changing priorities
2. The perception that providing the necessary resources to achieve the Mission is not a priority
3. The perception that decisions impacting achievement of the Mission are being controlled by political whims
4. The perception that employees are being asked to compromise water quality standards
5. The perception of a lack of transparency in how water quality decisions are made.

Interestingly, throughout the interview process, though the WRCB/WQCB Mission was continually mentioned, less than five individuals made any reference to the current WRCB/WQCB Strategic Plan. If Recommendation #5 is implemented, employee retention,

based on Mission attachment, will be advanced. Emphasis on the impact of advancing the WRCB/WQCB Mission on the lives of employees should be included in recruitment efforts.

Pay Equity – Pay Parity

At every group or one-on-one interview conducted in the Workforce Analysis, the issue of pay equity was raised as a primary retention issue. The issue was expressed in three ways:

1. Internal WRCB/WQCB pay equity between Environmental Scientists and Engineers/Geologists
2. Pay parity between the WRCB/WQCB and other State and local public sector agencies or entities
3. Pay parity between WRCB/WQCB employees and the private sector.

The increasing gap between pay for Engineers and Geologists as compared to Environmental Scientists is generating intense emotional reactions. This issue is impacting employee morale. Though Environmental Scientists consistently express emotions ranging from dissatisfaction to frustration to anger over the situation, Geologists and Engineers acknowledge the adverse impacts of the current situation as well. This disparity is accentuated when line staff receives higher pay than their supervisors due to classification and when employees, perceived to be doing the same work, receive significantly unequal pay. Previous disparity in pay was tolerable. However, the recent and future increases in pay for the Engineers and Geologists take the disparity to levels that will have significant impacts on employee decision-making about retention (amongst other areas).

The issue of pay parity for Environmental Scientists is complex. First, the issue of pay levels for Environmental Scientist goes beyond the WRCB/WQCB as other entities within the California Environmental Protection Agency address this issue.⁶ Second, this is a collective bargaining issue that reflects disparate power of bargaining units. Third, it must be acknowledged that the perception exists, amongst WRCB/WQCB Environmental Scientists, that the WRCB/WQCB leadership undermined their efforts to present the case for pay equity to the Cal/EPA. This perception holds:

- that WRCB/WQCB leadership sees a surplus amount of Environmental Scientists looking for employment and are available for recruitment
- that this surplus will enable the WRCB/WQCB to meet workforce needs
- that the WRCB/WQCB workforce needs can be met without inflating the personnel budget.

How the WRCB/WQCB responds to this perception is a critical decision. If ignored, the increasing potential impact on employee performance and retention is substantive.

Pay parity between the WRCB/WQCB and other government entities poses the greatest challenge to employee retention. The overall perception is that WRCB/WQCB employees can receive higher pay at other government entities while contributing to the mission of improving water quality and continuing to receive attractive benefit packages – especially retirement.

⁶ Pay Equity for California Environmental Protection Agency Scientists: A Plan to Secure our Scientific Foundation. February, 2006.

Transfer to another government agency or entity was more frequently mentioned as a viable career move than was going to the private sector. This is substantiated by the data for WRCB/WQCB employee separations. In the fiscal years of 2003-2004 and 2005-2006, the number of transfers to other government employment exceeded the number of retirements and permanent separations.

Pay parity between the WRCB/WQCB and the private sector is acknowledged as a reality. However, Engineers and Geologists describe satisfaction with how the gap has been closed with recent and future pay increases. Conflicting perceptions exist regarding the perceived or real discrepancies in pay parity between the WRCB/WQCB and the private sector for Environmental Scientists.

Lastly, amongst those participating in the Workforce Analysis, the issue of cost of living adjustments in order to off-set housing costs was frequently mentioned. Interestingly, individuals in almost every Region indicated the stress put on their personnel finances due to housing costs. The impact of this challenge, overtime, on retention could build significantly and should be monitored.

Recommendation #18: *The issue of pay parity needs to be addressed thru open and honest dialogue. This dialogue must first begin with the WRCB/WQCB Executive leadership. Acknowledgement of the short and long term implications of this issue for successfully accomplishing the work of the WRCB/WQCB is necessary.*

Recommendation #19: *Open and honest dialogue about the pay parity issue should be apparent to all WRCB/WQCB employees. Efforts should be made to provide factual descriptions of the status of that dialogue in order to avoid rumors and misperceptions of intentions. An important resource for initiating that dialogue is the document, "Pay Equity for California Environmental Protection Agency Scientists: A Plan to Secure our Scientific Foundation" dated February 10, 2006. This document presents recommendations related to pay, classifications and internal Cal/EPA classification alignment. This document offers the perspective of moving towards collective resolution of the issue rather than maintaining numerous we-they divisions.*

Recommendation #20: *Acknowledging that a significant external challenge to employee retention comes from other governmental agencies and entities and acknowledging that the WRCB/WQCB may not be able to compete thru salaries, efforts by leaders in the WRCB/WQCB to more proactively manage employee workload, to provide a comprehensive data/information management resources, and to enhance work-life balance opportunities become even more critical.*

Recommendation #21: *A clear case for choosing the WRCB/WQCB over the private sector can be made by emphasizing Mission effectiveness, employee benefits, work/life balance, and collegiality. This message should be fully and repeatedly incorporated into recruitment materials and messages.*

Career Development

Across all classifications participating in the Workforce Analysis, the perceived lack of promotional opportunities creates retention challenges. Amongst those in the C and D Ranges of Engineers and Geologists and those in the C Range of Environmental Scientists, a concern for career development is frequently expressed. This is especially true for those who do not wish to advance to supervisory positions. Once an employee has reached the maximum step increases in pay within the D Range for Engineers and Geologists and the C Range for Environmental Scientists, the options for career development are perceived as limited and employee commitment to the Agency is perceived as undervalued.

For those employees who are considering advancing to the Supervisory level several key issues stand in the way:

- There is no perceived financial motivation or reward for assuming the added responsibility that comes with a Senior or Supervisory classification.
- There is no clear process of preparation for supervisory positions and Individual Development Plans are under-used for career development planning.
- Opportunities to gain a broad understanding of the work of the organization thru rotational work experiences are available. However, managers are frequently reluctant to let their better workers be rotated, the large learning curve needed to work effectively impedes motivation to rotate; and, rotational opportunities are perceived as a means to move problem employees.
- Selection for supervisory positions is perceived to be frequently characterized by favoritism, politics or expediency, i.e. hidden agendas for supervisory selection are perceived to be operative.

Frequently mentioned perceptions about the non-supervisory, specialist classifications beyond Range D and C classifications, e.g. Staff Environmental Scientists, are:

- that the WRCB/WQCB is phasing out such classifications
- that they are classifications for administrative convenience
- that they provide an un-tapped opportunity for those who really want to do professional, scientific work
- that they would provide relief, in face of an ever-increasing amount of administrative and clerical work requirements, for those individuals seeking to do the scientific work for which they were trained.

Recommendation #22: *A clearly articulated Succession Plan for senior and supervisory positions would provide guidance and*

planning tools for those who entertain the desire to be considered for these positions. Such a plan would also challenge incumbent supervisor/managers to provide those wishing to pursue advancement with opportunities for the pre-requisite training and experience. Implementing a Succession Plan will require short term sacrifice in order to increase the numbers within the leadership pipeline.

Recommendation #23: *Implementation of Recommendations #1 and #3 can provide the employees in the technical classifications a clearer connection between their professional expertise and their day-to-day work tasks.*

Recommendation #24: *A clarification by the WRCB/WQCB leadership about the future role of non-supervisory, technical classifications beyond Range D for Engineers and Geologists and Range C for Environmental Scientists needs to be made and communicated to employees.*

Recommendation #25: *Greater priority must be given by WRCB/WQCB managers and supervisors to the annual performance review and the on-going monitoring of Individual Development Plans for employees.*

Employee Recognition

Eleven of the twelve primary classifications participating in the Workforce Analysis cited a lack of or inadequate employee recognition as an impediment to retention. Workforce research indicates that employee recognition is a critical factor for job satisfaction; and, that employers frequently underestimate its importance⁷. This research is verified by the experience at the WCRB. Though formal and informal means and opportunities for providing employee recognition exist, the use of such is perceived as minimal. One comment indicates the conundrum faced by employees, “All doing a good job gets you around here is more work.” Though a desire for formal means and opportunities for employee recognition was occasionally mentioned, employees are aware that options found in the private sector are not available in State service. Most WRCB/WQCB employees, at all levels, are just hoping for more frequent, simple expressions of appreciation.

Valuing employee recognition must first exist in the organizational culture. Secondly, valuing employee recognition must be integrated, from the very beginning, into the training and development of managers and supervisors. The possession of this skill in new managers should not be presumed. Thirdly, in effective organizations, accountability for effective employee recognition is incorporated into the annual performance reviews of managers and supervisors. Most organizational leaders would not want to be publicly quoted as saying employee

⁷ Towers Perrin, *ibid.* Randstad Work Solutions, *ibid.*

recognition is not important. Nevertheless, behavior reflects priorities and values. Numerous obstacles exist in State service and in the WRCB/WQCB that reduce the incentive to prioritize and value employee recognition amongst managers and supervisors, e.g.:

- the internalization of the stereotypes about the bureaucratic nature of state work and state employees
- the internalization of the stereotypes that state employees have a safe, cushy job about which there should be no complaints
- the adversarial relationships that can exist between union employees and those in managerial positions
- the crisis-oriented, putting-out-the-fires work environment in which many employees and manager/supervisors find themselves working, having little time for remembering to express appreciation for a job-well-done
- when managers/supervisors and Board members, themselves, do not experience expressions of appreciation, they can lose sight of the importance of giving recognition to employees.

Recommendation #26: *A facilitated, frank and candid discussion, held by the Executive Leadership and Board members at the State Board and at all Regional Boards, about the value of employee recognition can inform all as to whether employee recognition is a priority or a valued organizational responsibility within the WRCB/WQCB. The outcomes of this discussion can include specific goals and objectives for incorporating employee recognition more fully into the WRCB/WQCB culture.*

Work-Life Balance

Reflecting current workforce research, participants in the Workforce Analysis consistently mentioned that support by the WRCB/WQCB management for opportunities to achieve work-life balance was greatly appreciated. Frequently, those who moved from consulting work in the private sector to the WRCB/WQCB indicated that they were motivated to make the move in order to achieve greater work-life balance. Specifically, the availability of flexible work schedules received very high marks from line staff. Though there were concerns expressed about the inconsistent implementation of flexible work schedule policies (e.g. the use of tele-commuting and the availability of flexible work schedules at the senior and supervisory levels), the opportunity to develop a work schedule that meets both personal and work needs was described as a value.

Recommendation #27: *The value of providing a work environment that concretely supports work-life balance should permeate the recruitment and retention messaging of the WRCB/WQCB.*

Recommendation #28: *Recognizing that flexible scheduling is nuanced by tasks and classifications, Regional Boards should*

develop and make available to staff written policies (including rational) regarding flexible schedule availability, options and criteria for participation. Consistent implementation of those policies should be expected of all supervisors and managers.

Work Load

As presented in the discussion of WRCB/WQCB Trends, the increasing work load experienced by most of the WRCB/WQCB employees is also a cause for concern regarding employee retention. WRCB/WQCB employees are not naïve to the reality that:

- being expected to do more with less is a characteristic of government service
- accountability for under-performance is difficult to achieve in government service
- current personnel policy regarding PYs, the hiring process, personnel budgeting, and contracting work are confusing at best and are perceived as self-defeating to a pro-active workforce.

Research indicates that generational differences are significant in how employees respond to a seemingly unending addition of workload. The research suggests that toleration of this situation by the 27% of WRCB/WQCB employees under the age of 30 will be different than that of the 36.3% who are age 50 and over. In many organizations, an easy response to this reality has been to suggest that younger workers lack an appropriate work ethic. In reality, such a response demonstrates a lack of understanding of generational diversity and an inability to truly deal with the issue of workload.

Recommendation #29: *In addition to providing adequate resources for accomplishing the Mission of the agency and providing leadership in providing prioritization of the work to be completed, those in leadership positions within the WRCB/WQCB have the opportunity to proactively demonstrate the importance of retaining employees by confronting workload issues in a systematic manner. Such behavior will be embraced by employees as a demonstration by WRCB/WQCB leadership that they are valued and respected.*

Recommendation #30: *WRCB/WQCB leadership is challenged to develop a consistent policy, procedures and progressive protocol for working with those employees who are contributing sub-standard work. The implementation of these consistent policies, procedures and progressive protocols should be integrated into the early training received by those entering the Senior level classifications.*

Continuing Education/Professional Development

The value and importance of the Water Board Training Academy is continually sighted by all employees at all levels. This reflects on both the curriculum offered through the Training Academy and the willingness of supervisors to make the time available for employees to participate in the training opportunities. Data from the Training Academy indicates that the courses offered are well attended, positively evaluated and meeting identified needs (cf. Appendix F, page 65). In the two calendar years of 2005 and 2006 a total of 4,350 people attended 149 offered classes. The participants rated the courses at:

- Appropriate Level – 87%
- Quality of Instruction – 87%
- Met Objectives – 84%

Throughout the Workforce Analysis, a continually mentioned characteristic of the WRCB/WQCB is the long learning curve and the huge amount of on-the-job learning needed for task completion. Within the Workforce Analysis employees were asked to distinguish between the knowledge, skills and abilities needed at entry level in order to complete their job tasks and the on-the-job learning required to complete those tasks. This input highlights the increasing importance for internal and external training opportunities for WRCB/WQCB employees. This importance is further accentuated by the research data indicating that employees, in general, value self-development as a retention priority.

Related to the long learning curve and the necessity of on-the-job training for doing the work of the WRCB/WQCB, alarm exists as to the loss of institutional knowledge as personnel retire. As indicated in the Trends discussion, the retirement of personnel, who have been with the WRCB/WQCB 20 years or more, without an organized effort to retain their institutional memory and without an adequately sophisticated data management system will leave current employees further hamstrung in doing their work.

The most frequently mentioned concern regarding continuing education and professional development that frustrates employees and diminishes employee commitment is the limit on out-of-state training opportunities. This travel limitation is perceived as a historically-based punishment, i.e. current employees are being denied access to state-of-the-art information because of the poor behavior of employees past. This limitation is especially apparent for those issues, e.g. mining and forestry, where California is not in a position of leadership regarding best practices.

Recommendation #31: *Support of the Water Board Training Academy through adequate funding and resources must be a high priority for WRCB/WQCB leadership. This support should acknowledge that curriculum development needs to respond to both entry level and on-the-job learning needs.*

Recommendation #32: *Making resources and funding available for training, when that funding and those resources are limited, can result in a just-in-time approach to training decisions, i.e. the*

employee justifies the immediate need and relevance of the training to completing his/her tasks. WRCB/WQCB decisions about the planning for and the distribution of training resources need to reflect both current needs and future trends. Additionally, training opportunities for an employee to implement a Personal Development Plan must be provided irrespective of immediate application.

Recommendation #33: *The development of a WRCB/WQCB Succession Plan would include the development of strategies for retaining the institutional knowledge of those employees who have/are/will be retiring. Development of a Succession Plan should be given a high priority.*

Recommendation #34: *If the leadership of the WRCB/WQCB wants to maintain a cadre of professionals who are in touch with the state of the art discussion/learning/best practices related to the work of the WRCB/WQCB, a more beneficial use approach to out-of-state training and professional development opportunities needs to be developed.*

Work Environment

A primary work environment characteristic expressed by the Workforce Analysis participants was that they enjoyed working with their colleagues. A shared sense of mission creates a bond that encourages other-awareness. This sense of comradeship can be a strong motivator for retention as well as recruitment⁸.

Interestingly, all of the line-staff technical classifications indicated that the quality of the work environment is significantly determined by the presence of quality management and leadership. This is a description of the importance of organizational climate, i.e. the “perceptions that individuals have of how their local work unit is managed and how effectively they and their day-to-day colleagues work together on the job”⁹. The influence of a positive organization climate upon employee motivation, commitment, performance and retention has been supported by research for many years. Again reflecting the hopes expressed in workplace research that employees leave bosses and not organizations¹⁰, these WRCB/WQCB employees are indicating the need for professional development and accountability for those incumbents in the Senior and Supervising classifications.

At the same time, expressed detractors in creating a quality work environment include:

⁸ Bowler, W. M. & Brass, D. J. (2006). Relational Correlates of Interpersonal Citizenship Behavior: A Social Network Perspective. *Journal of Applied Psychology*, 91(1), 70-82.

⁹ Burke, W. W. (2002). *Organization Change: Theory and Practice*. Thousand Oaks, CA: SAGE Publications.

¹⁰ Kay, B. & Jordan-Evans, S. (1999). *Love 'Em or Lose 'Em: Getting Good People to Stay*. San Francisco: Berrett-Koehler Publishers, Inc

- lack of immediate physical connection with colleagues (other floors, other buildings, other regional offices)
- the lack of adequate feedback as to job performance
- the lack of accountability for those employees under-performing
- communication bottle-necks
- a sink-or-swim attitude towards employees accomplishing their work, especially new hires
- longer commutes in order to find affordable housing.

Though there was a limited participation in Step Two of the Workforce Analysis, the input received clearly indicated the tremendous amount of on-the-job training required for WRCB/WQCB employees. This challenge contributes to the experience of ‘sink-or-swim’ described by many of the participants in Step One of the Workforce Analysis. The ability for employees, especially new hires, to navigate the work and the need for on-the-job learning is a daunting task. Assistance by the WRCB/WQCB managers in helping achieve greater alignment of work and training is necessary.

Recommendation #35: *The importance of individual manager practices in developing a positive work climate should be integrated into management training and management performance evaluations. Though many organizational behavior dynamics are at work in the workplace, the single most powerful determinant of workplace climate is the day-to-day practices of those in the Senior and Supervising classifications. Those persons wanting to be considered for selection for these positions should clearly understand this role. The primary standard for selection of persons for these positions should be the ability to fulfill this role.*

Recommendation #36: *In order to overcome the ‘sink or swim’ experience of new hires, a more comprehensive orientation program for new hires should provide a clearer path in connecting the work to be done and the training necessary to accomplish that work.*

SUCCESSION PLAN

A Succession Plan is a component of an overall Workforce Plan that focuses upon preparing current employees within the organization for consideration as candidates for selected leadership and critical positions. Succession planning indicates that organizational leaders have given priority to developing the internal bench-strength of the organization's workforce, to hiring from within the organization whenever possible, and to developing organizational leaders internally.

A Succession Plan includes Two Dimensions:

1. the training, experiences and on-the-job learning current employees of an organization should pursue in order to develop the competencies needed to be considered a viable candidate for selected leadership and critical positions, and
2. the format, mediums and processes available to the organization for capturing the institutional memory and knowledge held by the incumbents in selected leadership and critical positions.

The successful implementation of a Succession Plan requires:

1. the support of and sponsorship by Executive leadership
2. alignment with the organization's strategic plan,
3. a realistic understanding of future opportunities and challenges to be faced by the organization,
4. an ownership of the Plan and a commitment to its implementation by managers and supervisors throughout the organization, and
5. an openness by incumbents in the selected leadership and critical positions to creating a legacy of captured institutional knowledge and memory
6. the existence of a potential flow of incumbents from lower classifications into upper classifications.

The benefits of a successfully implemented Succession Plan include an increased retention of talented employees, the building of a common focus and language around leadership development, a greater sense of strategic development within the workforce, improved collaboration and knowledge sharing across the organization, and an increased confidence in organizational leaders by the entire workforce.¹¹

The development of a Succession Plan that includes both dimensions described above should be undertaken for the 60 incumbents within the Environmental Program Manager I and II, Supervising Engineering Geologists, Supervising Water Resource Control Engineers and Principal Water Resource Control Engineers classifications. Implementation of Recommendation #24 will indicate whether a clear career path applies to the technical, non-supervisory classes and what efforts should be made in capturing the institutional knowledge for those classifications, e.g. Staff Environmental Scientists.

¹¹ Building the Leadership Pipeline in Local, State, and Federal Government; CPS Human Resource Services, 2005.

THIS IS A LIST OF THE RECOMMENDATIONS PROVIDED IN THE WORKFORCE PLAN

SUMMARY OF RECOMMENDATIONS

Division of Work:

Recommendation #1: *As clear as distinction as possible must be articulated between the analytical work that monitors compliance with water quality standards and the scientific/technical work that demonstrates the WRCB/WQCB's understanding of and leadership in responding to challenges related to water quality degradation and the use of California's limited water supply. (page 7)*

Recommendation #2: *Upon completion of Recommendation #1, an exploration of the appropriate classifications needed to accomplish each type of work can be undertaken. (page 7)*

Workforce Supply:

Recommendation #3: *Current data indicates that a shrinking pool of qualified candidates in the disciplines of environmental science, geology, and civil/environmental engineering will aggravate WRCB/WQCB efforts at recruitment. Consequently, every effort must be made by WRCB/WQCB leadership to maintain the competitive advantage that comes with State employment, the employee commitment related to the Mission of the WRCB/WQCB, and a clarification of the work for which these subject matter experts are needed. (page 13)*

Recommendation #4: *Effort must be focused on conducting employee exit interviews and collation of the gathered data in order to discover the specific reasons for the increasing number of transfers and permanent resignations of WRCB/WQCB employees, especially in the technical classifications. (page 13)*

Mission Focus:

Recommendation #5: *The continued acknowledgment of and reference to the Mission of the WRCB/WQCB as the State Board, Regional Boards and Executive Leadership of the WRCB/WQCB articulate the rationale and purpose of their decisions will enable WRCB/WQCB employees to own those decisions as Mission-driven. (p. 17)*

Recommendation #6: *For the WRCB/WQCB workforce, a transparency in decision-making by the State Board, Regional*

Boards and the Executive Leadership of the WRCB/WQCB would be enhanced through the acknowledgement of and discussion of the political dimensions of those decisions and that leadership.
(page 17)

Data/Information Management:

Recommendation #7: *The highest of priority must be given, by the Executive leadership of the WRCB/WQCB, to the development and implementation of a comprehensive data and information management system.* (page 17)

Recommendation #8: *Adequate support staff for implementing a comprehensive data/information management system should be provided. This should include the potential use of a large number of temporary data-entry persons in order to bring the data-base to operational levels.* (page 18)

Work Load:

Recommendation #9: *Ownership of the responsibility for providing adequate resources for conducting the work of the WRCB/WQCB must be embraced by the members of the State Board, members of each Regional Board and the Executive Leadership of the WRCB/WQCB.* (page 19)

Recommendation #10: *Ownership of the responsibility for providing leadership in prioritizing the work to be accomplished by employees must be embraced by the members of the State Board, members of each Regional Board and the Executive Leadership of the WRCB/WQCB. Clear articulation of and consistent adherence to those priorities should be made evident to WRCB/WQCB employees.* (page 19)

Personnel:

Recommendation #11: *Through the process of implementing Recommendation #1 and Recommendation #7 the WRCB/WQCB has the opportunity to more clearly and closely align segments of the work-to-be-done with an appropriate segment of the workforce. Creating this alignment will reveal not only the appropriate integration of geologists, engineers and environmental scientists, but also the appropriate inclusion of other scientific subject matter experts, forms of legal counsel, data/information management personnel and administrative staff. The inclusion of these additional resources will contribute to overcoming gaps in the current make-up of the WRCB/WQCB workforce.* (page 20)

Other Trends:

Recommendation #12: *The growing list of emergent contaminants requires implementation of Recommendations #5 and #10. Through these recommendations, the State Board, the Regional Boards, and the Executive Leadership of the WRCB/WQCB will have the opportunity to provide WRCB/WQCB employees with leadership and guidance as to the appropriate role and responsibility of the WRCB/WQCB pertaining to the broader human health issues related to emerging water quality contaminants or pollutants. (page 20)*

Recommendation #13: *Openness to the use and development of public participation knowledge, skills and abilities should be included in the recruitment and selection of employees as well as the on-going on-the-job training provided by the Training Academy and by Regional Boards. Training in the facilitation of group processes should be available to all WRCB/WQCB employees involved in public participation activities. (page 20)*

Recommendation #14: *Clarification, by the WRCB/WQCB Executive Leadership, of the current and future role of contracted services in accomplishing the work of the WRCB/WQCB will greatly assist employees in understanding boundaries between their own work and that of contractors. This clarification should include a description of quality standards expected of contractors; and, it should include a description of the processes WRCB/WQCB employees are to follow when sub-standard quality is provided by a contractor. (page 20)*

Recommendation #15: *The implementation of Recommendation #10 provides the opportunity for a much delayed honest discussion of and ownership of both the conceptual and the practical implications of developing and implementing Total Maximum Daily Load reports. (page 21)*

Recommendation #16: *The Executive Leadership of the WRCB/WQCB, and the State and Regional Boards as appropriate, should advocate for immediate improvements to the current, protracted contracting process – both as it pertains to the WRCB/WQCB and to the State. The current status of the contracting process needlessly jeopardizes resources available to the WRCB/WQCB. (page 21)*

State Employment:

Recommendation #17: *State employment benefits – especially health and retirement benefits – are a primary recruitment and*

retention resource and should be championed by WRCB/WQCB leadership. For State service to remain at all competitive with the private sector and other government entities, these benefits must be sustained. (page 22)

Pay Parity/Equity

Recommendation #18: *The issue of pay parity needs to be addressed thru open and honest dialogue. This dialogue must first begin with the WRCB/WQCB Executive leadership.*

Acknowledgement of the short and long term implications of this issue for successfully accomplishing the work of the WRCB/WQCB is necessary. (page 25)

Recommendation #19: *Open and honest dialogue about the pay parity issue should be apparent to all WRCB/WQCB employees. Efforts should be made to provide factual descriptions of the status of that dialogue in order to avoid rumors and misperceptions of intentions. An important resource for initiating that dialogue is the document, “Pay Equity for California Environmental Protection Agency Scientists: A Plan to Secure our Scientific Foundation” dated February 10, 2006. This document presents recommendations related to pay, classifications and internal Cal/EPA classification alignment. This document offers the perspective of moving towards collective resolution of the issue rather than maintaining numerous we-they divisions. (page 25)*

Recommendation #20: *Acknowledging that a significant external challenge to employee retention comes from other governmental agencies and entities and acknowledging that the WRCB/WQCB may not be able to compete thru salaries, efforts by leaders in the WRCB/WQCB to more proactively manage employee workload, to provide a comprehensive data/information management resources, and to enhance work-life balance opportunities become even more critical. (page 25)*

Recommendation #21: *A clear case for choosing the WRCB/WQCB over the private sector can be made by emphasizing Mission effectiveness, employee benefits, work/life balance, and collegiality. This message should be fully and repeatedly incorporated into recruitment materials and messages. (page 26)*

Career Development:

Recommendation #22: *A clearly articulated Succession Plan for senior and supervisory positions would provide guidance and planning tools for those who entertain the desire to be considered for these positions. Such a plan would also challenge incumbent*

supervisor/managers to provide those wishing to pursue advancement with opportunities for the pre-requisite training and experience. Implementing a Succession Plan will require short term sacrifice in order to increase the numbers within the leadership pipeline. (page 27)

Recommendation #23: *Implementation of Recommendations #1 and #3 can provide the employees in the technical classifications a clearer connection between their professional expertise and their day-to-day work tasks. (page 27)*

Recommendation #24: *A clarification by the WRCB/WQCB leadership about the future role of non-supervisory, technical classifications beyond Range D for Engineers and Geologists and Range C for Environmental Scientists needs to be made and communicated to employees. (page 27)*

Recommendation #25: *Greater priority must be given by WRCB/WQCB managers and supervisors to the annual performance review and the on-going monitoring of Individual Development Plans for employees. (page 27)*

Employee Recognition:

Recommendation #26: *A facilitated, frank and candid discussion, held by the Executive Leadership and Board members at the State Board and at all Regional Boards, about the value of employee recognition can inform all as to whether employee recognition is a priority or a valued organizational responsibility within the WRCB/WQCB. The outcomes of this discussion can include specific goals and objectives for incorporating employee recognition more fully into the WRCB/WQCB culture. (page 28)*

Work-Life Balance:

Recommendation #27: *The value of providing a work environment that concretely supports work-life balance should permeate the recruitment and retention messaging of the WRCB/WQCB. (page 28)*

Recommendation #28: *Recognizing that flexible scheduling is nuanced by tasks and classifications, Regional Boards should develop and make available to staff written policies (including rational) regarding flexible schedule availability, options and criteria for participation. Consistent implementation of those policies should be expected of all supervisors and managers. (page 29)*

Work Load

Recommendation #29: *In addition to providing adequate resources for accomplishing the Mission of the agency and providing leadership in providing prioritization of the work to be completed, those in leadership positions within the WRCB/WQCB have the opportunity to proactively demonstrate the importance of retaining employees by confronting workload issues in a systematic manner. Such behavior will be embraced by employees as a demonstration by WRCB/WQCB leadership that they are valued and respected. (page 29)*

Recommendation #30: *WRCB/WQCB leadership is challenged to develop a consistent policy, procedures and progressive protocol for working with those employees who are contributing sub-standard work. The implementation of these consistent policies, procedures and progressive protocols should be integrated into the early training received by those entering the Senior level classifications. (page 29)*

Continuing Education & Professional Development

Recommendation #31: *Support of the Water Board Training Academy through adequate funding and resources must be a high priority for WRCB/WQCB leadership. This support should acknowledge that curriculum development needs to respond to both entry level and on-the-job learning needs. (page 30)*

Recommendation #32: *Making resources and funding available for training, when that funding and those resources are limited, can result in a just-in-time approach to training decisions, i.e. the employee justifies the immediate need and relevance of the training to completing his/her tasks. WRCB/WQCB decisions about the planning for and the distribution of training resources need to reflect both current needs and future trends. Additionally, training opportunities for an employee to implement a Personal Development Plan must be provided irrespective of immediate application. (page 30)*

Recommendation #33: *The development of a WRCB/WQCB Succession Plan would include the development of strategies for retaining the institutional knowledge of those employees who have/are/will be retiring. Development of a Succession Plan should be given a high priority. (page 31)*

Recommendation #34: *If the leadership of the WRCB/WQCB wants to maintain a cadre of professionals who are in touch with the state of the art discussion/learning/best practices related to the*

work of the WRCB/WQCB, a more beneficial use approach to out-of-state training and professional development opportunities needs to be developed. (page 31)

Work Environment

Recommendation #35: *The importance of individual manager practices in developing a positive work climate should be integrated into management training and management performance evaluations. Though many organizational behavior dynamics are at work in the workplace, the single most powerful determinant of workplace climate is the day-to-day practices of those in the Senior and Supervising classifications. Those persons wanting to be considered for selection for these positions should clearly understand this role. The primary standard for selection of persons for these positions should be the ability to fulfill this role. (page 32)*

Recommendation #36: *In order to overcome the 'sink or swim' experience of new hires, a more comprehensive orientation program for new hires should provide a clearer path in connecting the work to be done and the training necessary to accomplish that work. (page 32)*

APPENDIX A

Task Force Membership

WORKFORCE PLANNING TASKFORCE MEMBERS

Region 1	Susan Warner, Bob Klamt
Region 2	Bill Johnson
Region 3	Burton Chadwick
Region 4	Deborah Smith
Region 5	Ken Landau
Region 6	Robert Dodds
Region 7	Jose Angel
Region 8	Kurt Berchtold
Region 9	David Barker
State Board	Adrian Perez
	Kathy Mrowka
	Alan Patton
	Ken Harris

APPENDIX B
WRCB/WQCB WORKFORCE ANALYSIS
EMPLOYEE PARTICIPATION

Workforce Analysis Employee Participation – 335 Regional Board and State Board Participants

Classification	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	State Board	Total
Engineering Geologist Rng B										X	1
Engineering Geologist Rng D & C	X	X	X	X	X	X		X	X	X	63
Engineering Geologist Senior	X	X	X	X	X	X	X	X	X	X	34
Engineering Geo. Supervisor		X		X			X			X	5
Environmental Scientist Rng C	X	X	X	X	X	X	X	X	X	X	39
Environmental Scientist Rng B					X	X				X	7
Environmental Scientist Rng A										X	8
Environmental Scientist Senior	X	X	X	X	X	X		X	X	X	19
Environmental Scientist Staff		X	X	X	X	X		X	X	X	15
EPM I				X				X		X	5
EPM II										X	2
Senior Environ. Planner				X							1
WRCE Range A									X	X	4
WRCE Range B									X	X	4
WRCE Range C	X	X	X	X		X	X	X	X	X	34
WRCE Range D	X	X	X	X	X	X		X		X	36
WRCE Senior	X	X	X	X			X	X	X	X	20
WRCE Supervising	X	X	X	X	X	X	X	X	X	X	21
WRCE Principal	X					X	X			X	5
Research Analyst II GIS		X								X	2
Staff Chemist					X						1
Senior Land & Water Use Spec.					X						1
Sanitary Eng. Technician					X						1
Sanitary Eng. Associate							X	X	X		5
Assoc Info Sys Analyst Spec										X	1
Research Prog Specialist I										X	1

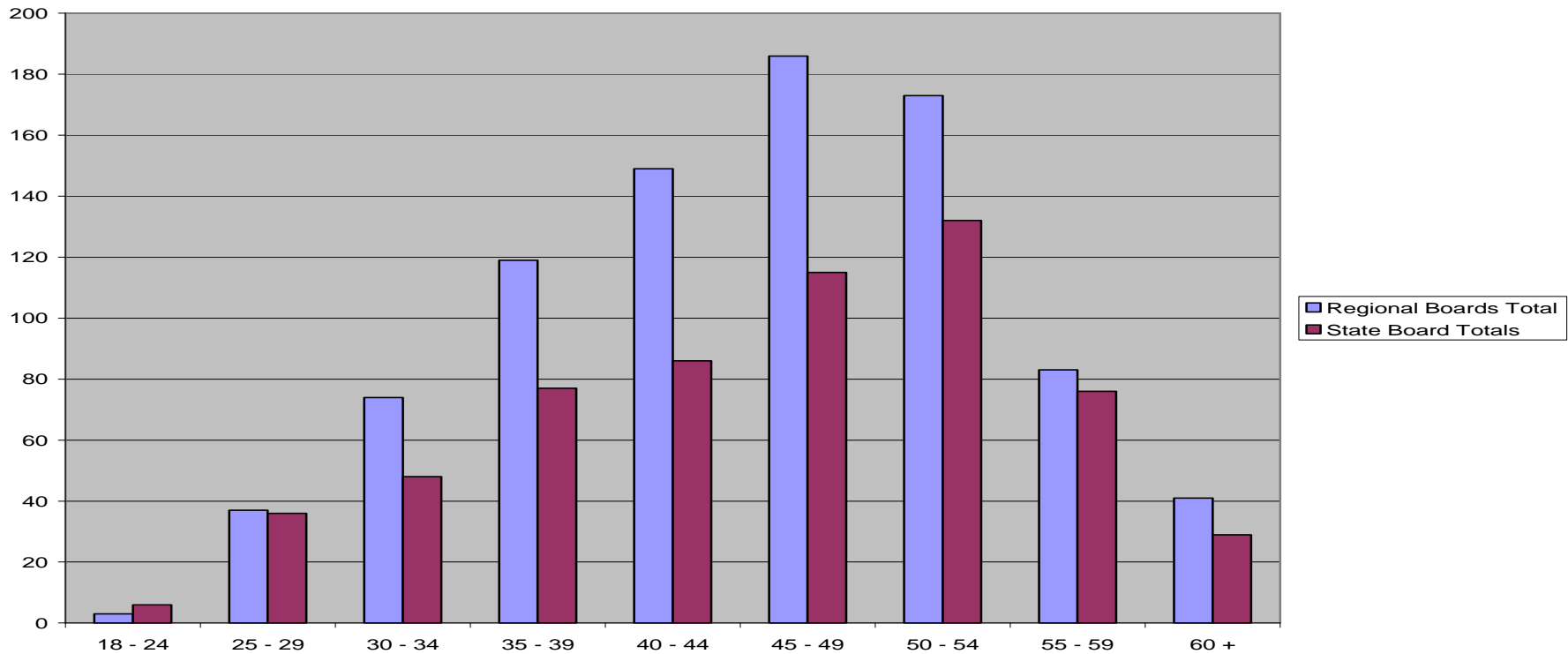
APPENDIX C

**WRCB/WQCB WORKFORCE DEMOGRAPHICS
AGE DISTRIBUTION**

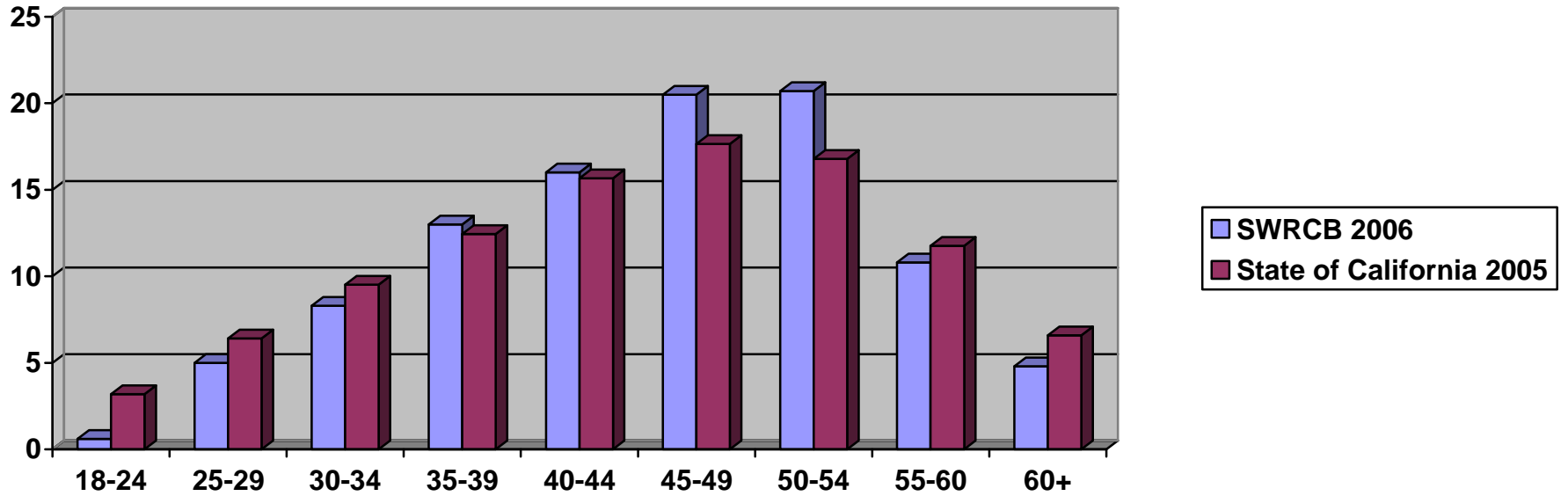
SWRCB/WQCB EMPLOYEE AGE DISTRIBUTION

(Current Regional and State Board Data as of June 9, 2006)

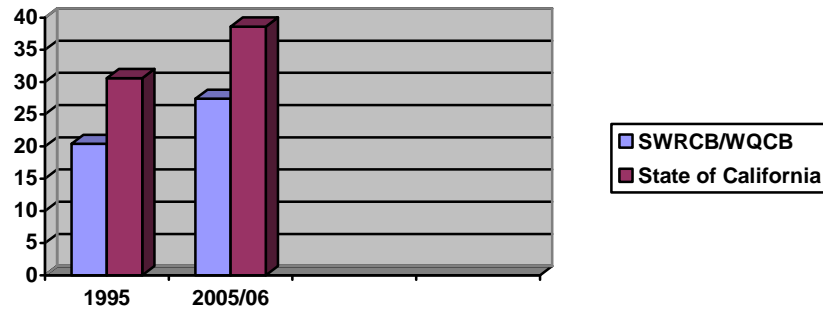
	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	% 50+
Regional Board Totals	3	37	74	119	149	186	173	83	41	
State Board Totals	6	36	48	77	86	115	132	76	29	
Grand Total for Water Boards 2006	9	73	122	196	235	301	305	159	70	
Grand Total for Water Boards 1995	21	86	154	215	261	196	127	83	47	
% of Total of 1470 SWRCB Employees on 6-9-2006	.6	5.0	8.3	13.0	16.0	20.5	20.7	10.8	4.8	36.3
% of Total of 1,190 SWRCB Employees on 12-31-1995	1.76	7.23	12.94	18.07	21.93	16.47	10.67	6.97	3.95	21.6
State of California % of 208,704 Total Employees 9-30-05	3.19	6.41	9.51	12.45	15.67	17.65	16.78	11.76	6.59	35.1
State of California % of 190,440 Total Employees 12-31-95	2.84	7.61	13.05	16.37	17.66	17.44	11.80	7.55	5.68	25.03



SWRCB/WQCB AND STATE OF CALIFORNIA EMPLOYEE AGE DISTRIBUTION
 Percentage of Total Employees



SWRCB/WQCB AND STATE OF CALIFORNIA
 Percentage of Employees Over 50 Years of Age in 1995 and 2005/06



**State Water Resources Control Board
Workforce Planning Data
Data as of June 9, 2006**

Age Distribution for Total Employees by Regional Boards and State Board

Region/State	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59-	60+
Region 1 – Santa Rosa	0	4	7	14	11	16	17	11	5
Region 2 – Oakland	0	1	5	13	23	32	21	11	5
Region 3 – San Luis Obispo	0	6	8	9	14	12	15	7	0
Region 4 – Los Angeles	0	5	5	23	24	32	28	14	8
Region 5 – Sacramento, Fresno, Redding	0	16	26	29	38	44	45	19	12
Region 6 – South Lake Tahoe, Victorville	2	1	4	5	16	9	12	5	3
Region 7 – Palm Desert	0	1	3	4	6	13	5	2	2
Region 8 – Riverside	1	2	5	7	9	19	16	11	3
Region 9 – San Diego	0	1	11	15	8	9	14	3	3
State Board	6	36	48	77	86	115	132	76	29
Total for Water Boards	9	73	122	196	235	301	305	159	70

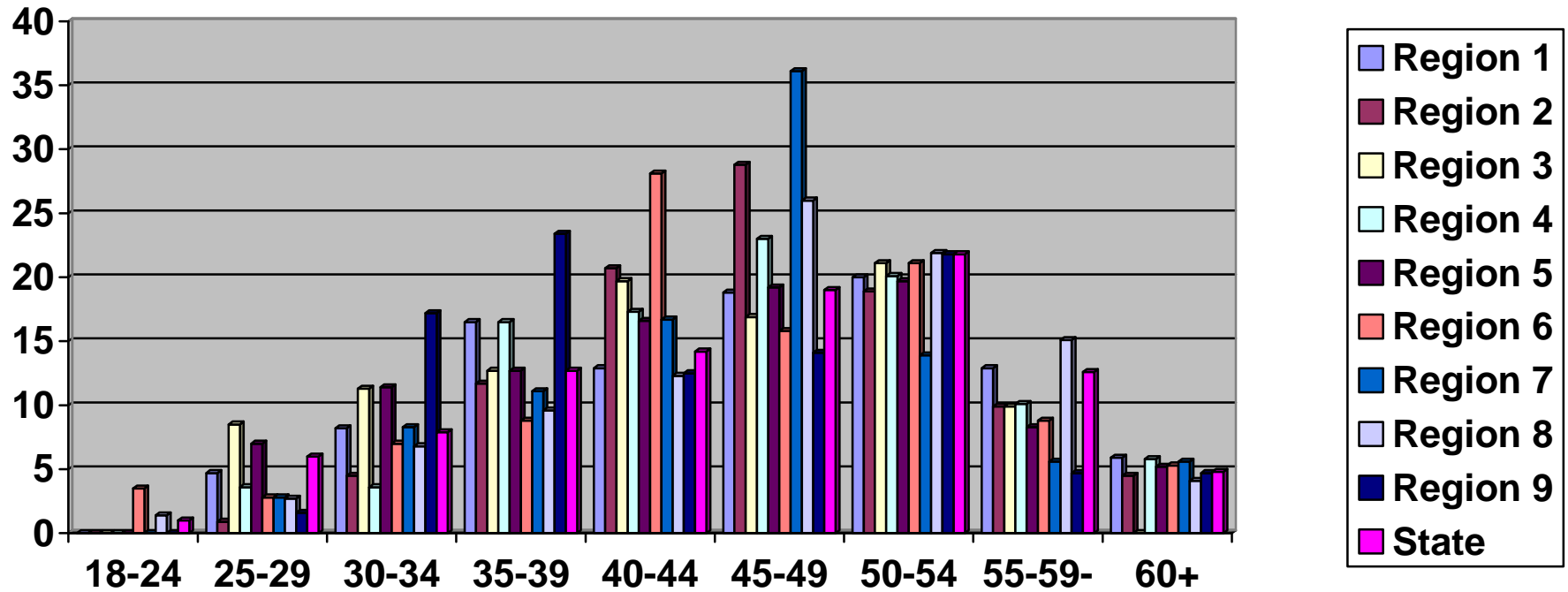
Percentage of Age Distribution for Total Employees by Regional Boards and State Board

Region/State	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59-	60+
Region 1 – Santa Rosa	0	4.7%	8.2%	16.5%	12.9%	18.8%	20.0%	12.9%	5.9%
Region 2 – Oakland	0	.9%	4.5%	11.7%	20.7%	28.8%	18.9%	9.9%	4.5%
Region 3 – San Luis Obispo	0	8.5%	11.3%	12.7%	19.7%	16.9%	21.1%	9.9%	0
Region 4 – Los Angeles	0	3.6%	3.6%	16.5%	17.3%	23.0%	20.1%	10.1%	5.8%
Region 5 – Sacramento, Fresno, Redding	0	7.0%	11.4%	12.7%	16.6%	19.2%	19.7%	8.3%	5.2%
Region 6 – South Lake Tahoe, Victorville	3.5%	2.8%	7.0%	8.8%	28.1%	15.8%	21.1%	8.8%	5.3%
Region 7 – Palm Desert	0	2.8%	8.3%	11.1%	16.7%	36.1%	13.9%	5.6%	5.6%
Region 8 – Riverside	1.4%	2.7%	6.8%	9.6%	12.3%	26.0%	21.9%	15.1%	4.1%
Region 9 – San Diego	0	1.6%	17.2%	23.4%	12.5%	14.1%	21.8%	4.7%	4.7%
State Board	1.0%	6.0%	7.9%	12.7%	14.2%	19.0%	21.8%	12.6%	4.8%
Total Water Boards									



**State Water Resources Control Board
Workforce Planning Data
Data as of June 9, 2006**

Percentage of Age Distribution for Total Employees by Regional Boards and State Board
(Graphic Presentation)



State Water Resources Control Board
Workforce Planning Data
 Data as of June 9, 2006

Age Distribution by Subject Matter Expert Classifications

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Engineering Geologist	0	0	2	3	2	4	8	0	1
2	Engineering Geologist	0	0	0	3	4	13	4	0	0
3	Engineering Geologist	0	0	0	2	5	3	4	1	0
4	Engineering Geologist	0	0	1	2	6	4	6	2	1
5	Engineering Geologist	0	1	4	3	9	19	11	5	4
6	Engineering Geologist	0	0	1	0	5	2	1	1	1
7	Engineering Geologist	0	0	0	0	1	1	0	0	0
8	Engineering Geologist	0	0	0	0	3	3	2	1	1
9	Engineering Geologist	0	0	1	2	1	2	1	0	0
State	Engineering Geologist	0	2	2	1	3	2	4	2	3
Total	Engineering Geologist	0	3	11	16	39	53	41	12	11

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Senior Engineering Geologist	0	0	0	0	0	0	2	1	0
2	Senior Engineering Geologist	0	0	0	0	1	0	0	2	0
3	Senior Engineering Geologist	0	0	0	0	1	1	1	0	0
4	Senior Engineering Geologist	0	0	0	0	1	3	3	0	1
5	Senior Engineering Geologist	0	0	0	1	2	0	8	1	1
6	Senior Engineering Geologist	0	0	0	0	3	0	1	0	0
7	Senior Engineering Geologist	0	0	0	0	0	0	2	0	0
8	Senior Engineering Geologist	0	0	0	0	0	2	0	1	0
9	Senior Engineering Geologist	0	0	0	0	0	2	3	0	0
State	Senior Engineering Geologist	0	0	0	1	4	2	4	2	1
Total	Senior Engineering Geologist	0	0	0	2	12	10	24	7	3



Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
2	Supervising Engineering Geologist	0	0	0	0	0	0	0	1	0
3	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
4	Supervising Engineering Geologist	0	0	0	0	0	0	1	0	0
5	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
6	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
7	Supervising Engineering Geologist	0	0	0	0	0	0	1	0	0
8	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
9	Supervising Engineering Geologist	0	0	0	0	0	0	0	0	0
State	Supervising Engineering Geologist	0	0	0	0	0	1	2	0	0
Total	Supervising Engineering Geologist	0	0	0	0	0	1	4	1	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Water Resource Control Engineer	0	1	3	5	2	3	0	0	1
2	Water Resource Control Engineer	0	0	2	8	6	9	7	1	1
3	Water Resource Control Engineer	0	4	4	3	1	2	3	2	0
4	Water Resource Control Engineer	0	2	1	11	7	9	4	4	3
5	Water Resource Control Engineer	0	2	6	5	7	9	6	2	4
6	Water Resource Control Engineer	0	0	1	0	4	1	2	2	0
7	Water Resource Control Engineer	0	0	1	2	0	7	0	0	0
8	Water Resource Control Engineer	0	1	1	2	1	4	6	1	0
9	Water Resource Control Engineer	0	1	6	9	1	2	0	0	0
State	Water Resource Control Engineer	0	8	8	5	16	14	8	9	2
Total	Water Resource Control Engineer	0	19	33	50	45	60	36	21	11

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Senior Water Res Control Engineer	0	0	0	1	0	0	1	3	0
2	Senior Water Res Control Engineer	0	0	1	1	1	1	2	0	1
3	Senior Water Res Control Engineer	0	0	0	0	0	0	2	0	0
4	Senior Water Res Control Engineer	0	0	0	0	0	3	4	0	0
5	Senior Water Res Control Engineer	0	0	0	2	6	4	6	1	0
6	Senior Water Res Control Engineer	0	0	0	0	2	1	0	0	0
7	Senior Water Res Control Engineer	0	0	0	0	0	2	0	0	0
8	Senior Water Res Control Engineer	0	0	0	0	0	1	2	1	0



9	Senior Water Res Control Engineer	0	0	0	0	1	0	1	1	0
State	Senior Water Res Control Engineer	0	0	2	2	3	5	4	3	0
Total	Senior Water Res Control Engineer	0	0	3	6	13	17	22	9	1

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Super Water Res Cont Eng/Sup	0	0	0	0	0	0	0	0	1
2	Super Water Res Cont Eng/Sup	0	0	0	0	0	2	1	1	0
3	Super Water Res Cont Eng/Sup	0	0	0	0	1	0	0	0	0
4	Super Water Res Cont Eng/Sup	0	0	0	0	0	0	0	0	0
5	Super Water Res Cont Eng/Sup	0	0	0	0	1	2	0	1	2
6	Super Water Res Cont Eng/Sup	0	0	0	0	1	0	1	0	1
7	Super Water Res Cont Eng/Sup	0	0	0	0	0	1	0	0	0
8	Super Water Res Cont Eng/Sup	0	0	0	0	0	0	0	1	1
9	Super Water Res Cont Eng/Sup	0	0	0	0	0	0	1	0	1
State	Super Water Res Cont Eng/Sup	0	0	0	0	2	0	4	1	0
Total	Super Water Res Cont Eng/Sup	0	0	0	0	5	5	7	4	6

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Principal Water Res Con Engineer	0	0	0	0	0	0	1	0	0
2	Principal Water Res Con Engineer	0	0	0	0	0	0	0	0	2
3	Principal Water Res Con Engineer	0	0	0	0	0	0	0	0	0
4	Principal Water Res Con Engineer	0	0	0	0	0	0	0	0	0
5	Principal Water Res Con Engineer	0	0	0	0	0	0	1	3	0
6	Principal Water Res Con Engineer	0	0	0	0	0	0	0	1	0
7	Principal Water Res Con Engineer	0	0	0	0	0	0	0	0	0
8	Principal Water Res Con Engineer	0	0	0	0	0	1	0	0	0
9	Principal Water Res Con Engineer	0	0	0	0	0	0	0	0	1
State	Principal Water Res Con Engineer	0	0	0	0	0	2	0	1	0
Total	Principal Water Res Con Engineer	0	0	0	0	0	3	2	5	3

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Environmental Scientist	0	2	2	3	3	2	0	3	1
2	Environmental Scientist	0	1	1	1	5	1	2	0	0
3	Environmental Scientist	0	1	4	3	3	2	1	1	0
4	Environmental Scientist	0	3	3	6	2	1	3	0	1



5	Environmental Scientist	0	12	11	8	5	5	5	0	0
6	Environmental Scientist	0	0	2	4	1	2	3	0	0
7	Environmental Scientist	0	0	2	2	2	1	0	1	0
8	Environmental Scientist	0	1	4	4	3	0	3	1	0
9	Environmental Scientist	0	0	2	2	3	0	4	0	0
State	Environmental Scientist	2	11	9	10	5	8	12	6	2
Total	Environmental Scientist	2	31	40	43	32	22	33	12	4

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Staff Environmental Scientist	0	0	0	0	0	0	1	0	1
2	Staff Environmental Scientist	0	0	0	0	1	0	1	2	1
3	Staff Environmental Scientist	0	0	0	0	0	1	1	0	0
4	Staff Environmental Scientist	0	0	0	1	0	2	1	1	0
5	Staff Environmental Scientist	0	0	0	0	1	0	0	0	1
6	Staff Environmental Scientist	0	0	0	0	0	2	0	0	1
7	Staff Environmental Scientist	0	0	0	0	0	0	0	0	0
8	Staff Environmental Scientist	0	0	0	0	0	1	0	0	0
9	Staff Environmental Scientist	0	0	0	0	0	0	0	0	1
State	Staff Environmental Scientist	0	0	0	0	1	1	3	1	1
Total	Staff Environmental Scientist	0	0	0	1	3	9	7	5	6

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Senior Environmental Scientist	0	0	0	0	0	1	0	1	0
2	Senior Environmental Scientist	0	0	1	0	1	0	1	0	0
3	Senior Environmental Scientist	0	0	0	0	1	0	0	0	0
4	Senior Environmental Scientist	0	0	0	0	1	2	0	0	0
5	Senior Environmental Scientist	0	0	1	0	0	1	1	0	0
6	Senior Environmental Scientist	0	0	0	0	0	0	0	0	0
7	Senior Environmental Scientist	0	0	0	0	0	0	0	0	0
8	Senior Environmental Scientist	0	0	0	0	0	3	0	1	0
9	Senior Environmental Scientist	0	0	1	1	1	0	0	0	0
State	Senior Environmental Scientist	0	0	1	2	0	4	2	2	2
Total	Senior Environmental Scientist	0	0	4	3	4	11	4	4	2

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
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1	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	2	0
2	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	1	0	0
3	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	0	0
4	Environmental Prog Manager 1/Sup	0	0	0	0	0	1	2	0	0
5	Environmental Prog Manager 1/Sup	0	0	0	0	1	0	0	2	0
6	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	0	0
7	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	0	0
8	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	1	0
9	Environmental Prog Manager 1/Sup	0	0	0	0	0	0	0	0	0
State	Environmental Prog Manager 1/Sup	0	0	0	0	0	1	1	1	0
State	Environmental Prog Manager II	0	0	0	0	0	0	1	0	0
Total	Environmental Prog Manager 1/Sup	0	0	0	0	1	2	5	6	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Sanitary Engineering Associate	0	0	0	1	2	1	2	0	0
3	Sanitary Engineering Associate	0	0	0	0	0	2	1	0	0
4	Sanitary Engineering Associate	0	0	0	0	2	0	0	1	0
5	Sanitary Engineering Associate	0	0	1	0	2	1	1	0	0
7	Sanitary Engineering Associate	0	0	0	0	0	0	0	0	1
8	Sanitary Engineering Associate	0	0	0	0	0	2	2	0	1
9	Sanitary Engineering Associate	0	0	0	0	0	2	0	0	0
State	Sanitary Engineering Associate	0	0	1	0	0	1	6	0	1
Total	Sanitary Engineering Associate	0	0	2	1	6	9	12	1	3

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
2	Sanitary Engineering Technician	0	0	0	0	0	1	0	0	0
4	Sanitary Engineering Technician	0	0	0	0	1	0	0	0	0
5	Sanitary Engineering Technician	0	0	0	0	1	0	0	0	0
5	Sanitary Engineering Technician Tr	0	0	1	0	0	0	0	0	0
7	Sanitary Engineering Technician	0	1	0	0	0	0	0	0	0
State	Sanitary Engineering Technician	0	0	1	0	0	0	0	0	1
Total	Sanitary Engineering Technician	0	1	2	0	2	1	0	0	1

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
5	Assoc Land & Water Use Analyst	0	0	0	1	0	0	1	0	0



5	Senior Land & Water Use Analyst	0	0	0	0	0	0	1	0	0
Total		0	0	0	1	0	0	2	0	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
4	Senior Environmental Planner	0	0	0	0	0	1	0	0	0
5	Staff Chemist	0	0	0	0	0	1	0	0	0
State	Staff Toxicologist	0	0	0	0	0	0	0	1	1
2	Research Analyst II Geo Info	0	0	0	0	1	0	0	0	0
4	Research Analyst I Geo Info	0	0	0	0	0	1	0	0	0
State	Research Mgr II Geo Info	0	0	0	0	1	0	0	0	0
State	Research Program Sp Geo Info	0	0	0	2	0	0	0	0	0
State	Research Program Sp II Eco	0	0	0	0	0	0	0	0	1
State	Research Program Specialist I	0	0	0	0	1	1	0	0	0
State	Associate Industrial Hygienist	0	1	0	0	0	0	0	1	0
State	Senior Industrial Hygienist	0	0	0	0	0	0	1	0	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Assoc Governmental Prog Analyst	0	0	0	0	0	3	0	0	0
2	Assoc Governmental Prog Analyst	0	0	0	0	0	1	0	0	0
3	Assoc Governmental Prog Analyst	0	0	0	0	0	0	0	0	0
4	Assoc Governmental Prog Analyst	0	0	0	1	2	1	2	0	1
5	Assoc Governmental Prog Analyst	0	0	0	1	0	0	0	0	0
6	Assoc Governmental Prog Analyst	0	0	0	0	0	0	0	0	0
7	Assoc Governmental Prog Analyst	0	0	0	0	1	0	0	0	0
8	Assoc Governmental Prog Analyst	0	0	0	0	0	1	0	0	0
9	Assoc Governmental Prog Analyst	0	0	0	0	0	0	0	0	0
State	Assoc Governmental Prog Analyst	0	2	2	13	10	20	19	12	5
Total	Assoc Governmental Prog Analyst	0	2	2	15	13	26	21	12	6

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Information Systems Technician	0	0	0	0	0	0	1	0	0
2	Information Systems Technician	0	0	0	0	0	0	0	0	0
3	Information Systems Technician	0	0	0	0	0	0	0	0	0
4	Information Systems Technician	0	0	0	0	0	0	0	0	0



5	Information Systems Technician	0	1	0	0	0	0	0	0	0
6	Information Systems Technician	0	0	0	0	0	0	0	0	0
7	Information Systems Technician	0	0	0	0	0	0	0	0	0
8	Information Systems Technician	0	0	0	0	1	0	0	0	0
9	Information Systems Technician	0	0	0	0	0	0	1	0	0
State	Information Systems Technician	0	0	0	0	0	0	1	0	0
Total	Information Systems Technician	0	1	0	0	1	0	3	0	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Staff Info Systems Analyst/SP	0	0	0	1	0	0	0	0	0
2	Staff Info Systems Analyst/SP	0	0	0	0	0	1	0	0	0
3	Staff Info Systems Analyst/SP	0	0	0	0	0	0	0	0	0
4	Staff Info Systems Analyst/SP	0	0	0	1	0	0	0	0	0
5	Staff Info Systems Analyst/SP	0	0	0	0	1	0	1	0	0
	Staff Info Systems Analyst/Sup	0	0	0	1	0	0	0	0	0
6	Staff Info Systems Analyst/SP	0	0	0	0	0	0	0	0	0
7	Staff Info Systems Analyst/SP	0	0	0	0	0	0	0	0	0
8	Staff Info Systems Analyst/SP	0	0	0	1	0	0	0	0	0
9	Staff Info Systems Analyst/SP	0	0	0	0	0	0	1	0	0
State	Staff Info Systems Analyst/SP	0	2	1	2	3	3	2	1	0
Total	Staff Info Systems Analyst/SP	0	2	1	6	4	4	4	1	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
2	Assoc. Info. Sys. Analyst/SP	0	0	0	0	1	0	0	0	0
3	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
4	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
5	Assoc. Info. Sys. Analyst/SP	0	0	0	1	0	0	0	0	0
6	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
7	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
8	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
9	Assoc. Info. Sys. Analyst/SP	0	0	0	0	0	0	0	0	0
State	Assoc. Info. Sys. Analyst/SP	0	0	2	0	0	1	0	1	0
Total	Assoc. Info. Sys. Analyst/SP	0	0	2	1	1	1	0	1	0



Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
2	Assistant Info. Sys. Analyst	0	0	0	0	0	1	0	0	0
3	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
4	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
5	Assistant Info. Sys. Analyst	0	0	0	1	0	0	0	0	0
6	Assistant Info. Sys. Analyst	0	0	0	0	0	0	1	0	0
7	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
8	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
9	Assistant Info. Sys. Analyst	0	0	0	0	0	0	0	0	0
State	Assistant Info. Sys. Analyst	0	0	0	0	0	0	2	1	0
Total	Assistant Info. Sys. Analyst	0	0	0	1	0	1	3	1	0

Region	Classification	18-24	25-39	30-34	35-39	40-44	45-49	50-54	55-59	60+
1	CEA	0	0	0	0	0	0	0	0	0
2	CEA	0	0	0	0	0	0	0	0	0
3	CEA	0	0	0	0	1	0	0	0	0
4	CEA	0	0	0	0	0	1	0	0	0
5	CEA	0	0	0	0	0	0	0	0	0
6	CEA	0	0	0	0	0	0	0	0	0
7	CEA	0	0	0	0	0	1	0	0	0
8	CEA	0	0	0	0	0	0	0	0	0
9	CEA	0	0	0	0	0	0	0	0	0
State	CEA	0	0	0	2	1	4	5	1	1
Total	CEA	0	0	0	2	2	6	5	1	1

APPENDIX D

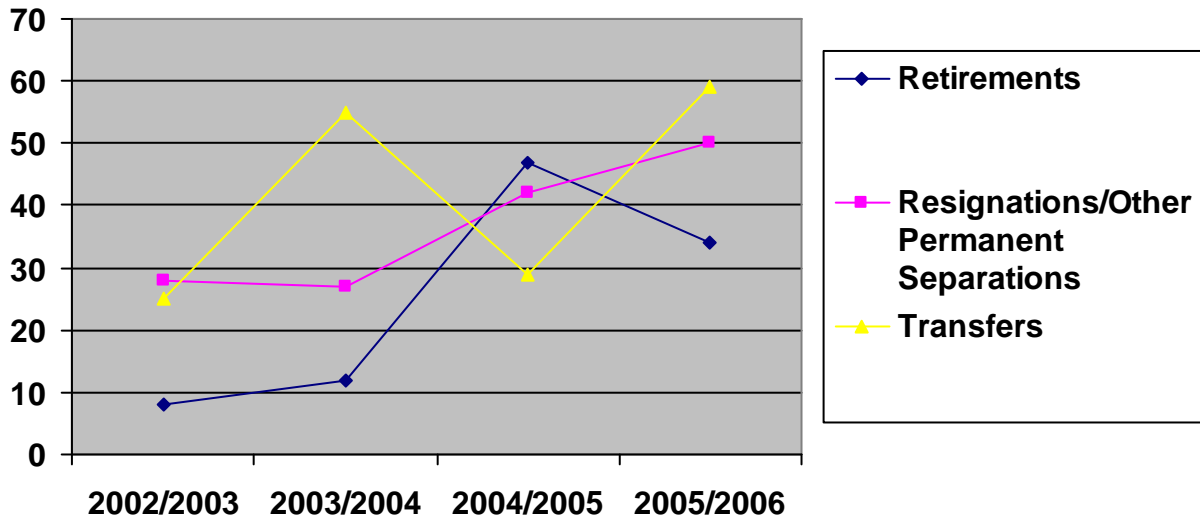
WRCB/WQCB EMPLOYEE SEPARATIONS

STATE WATER RESOURCES CONTROL BOARD
 INFORMATION FOR WORKFORCE PLANNING
 July 7, 2006

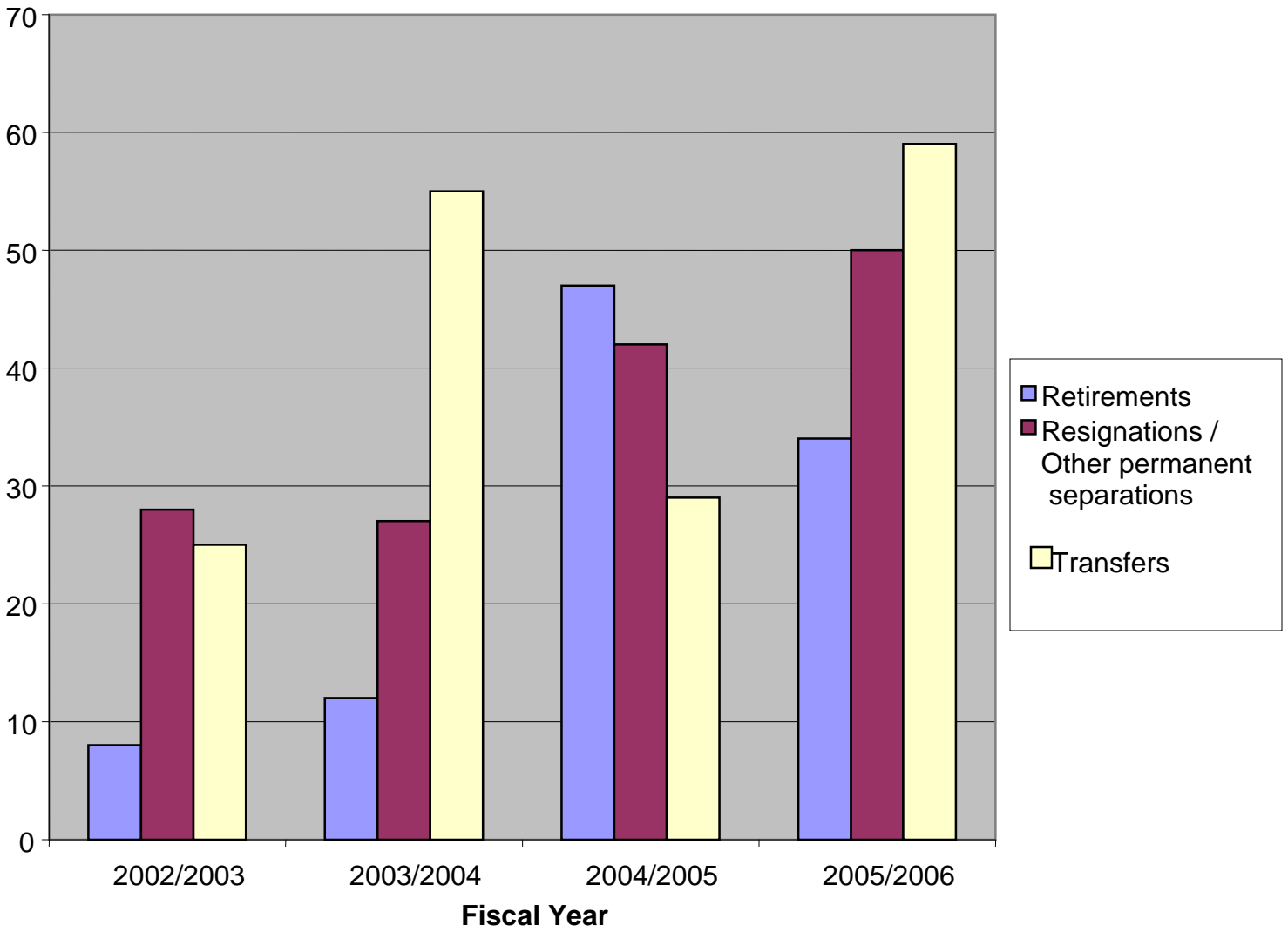
SWRCB/WQCB Employee Separations

Data as of June 9, 2006

	2002/2003	2003/2004	2004/2005	2005/2006
Retirements	8	12	47	34
Resignations / Other permanent separations	28	27	42	50
Transfers	25	55	29	59



SWRCB/WQCB Workforce Analysis



APPENDIX E

CURRENT EFFORTS AT WORKFORCE PLANNING, RETENTION and SUCCESSION PLANNING

WORKFORCE AND SUCCESSION PLAN CURRENT ACTIVITIES

Recruitment

- Advertisement and Recruitment Fairs - The Personnel Branch has developed advertisements for the Water Board's three main technical/professional examinations. The ads are currently being distributed on Craigslist and will be placed on the Monstertrak and Nacelink Internet services (services used by universities and colleges across the State and the country). The Water Board's recruitment officer and program staff are attending recruitment fairs. Increased presence at recruitment fairs is planned.

Employee Development

Training Academy

- Leadership Training Program - In conjunction with UC Davis, the Water Board's Training Academy has developed the Leadership Training Program. The curricula is designed to provide leadership training in the following three areas:
 1. Leadership Principles
 - Science and the Art of Leadership
 - The Work of Leadership
 - Leading Change
 2. Collaborative Leadership
 - Designing an Effective Stakeholder Involvement Process
 - Managing and Communicating Scientific Information Effectively
 - Facilitating and Negotiating in Collaborative Processes
 3. Leadership Seminars
 - The Regulatory Craft
 - Practical Performance Management
- Executive Leadership – Selected senior executives participated in executive leadership programs including the UC Davis Executive Program and the Kenned School of Government program.
- Supervisor and Manager Training – A training course was developed for supervisors and managers regarding the effective use of the employee performance evaluation process. Emphasis was placed on improving skills in giving positive and constructive feedback.
- Managing the Transition to Supervision – This training course was designed to assist those individuals who are interested in pursuing a career goal of manager and supervisor. Participants are introduced to the skills needed to be successful in these roles.

- Lead the Way Workshops – This workshop series is a compact learning experience (90 minutes) that affords staff at all levels the opportunity to briefly delve into a specific leadership area and challenges them to seek ways to quickly apply the concepts presented. The workshop format includes a video presentation, small group activity, discussion and time to create a personal action plan to apply the workshop concepts. Each month a different topic is presented.
- Web-Based Tips and Tools – Tips and Tools resources are available on the Water Board’s Intranet for the following topics:
 - Preparing for an Examination Interview (QAP)
 - Preparing for a Hiring Interview
 - Do’s and Don’ts for an interview
 - The Appeal Process
 - Resume Preparation Tips
- Professional and Career Development – Resources are available on the Water Board’s intranet for assistance in profession and career development. Descriptive information about the use of the Individual Development Plan, resources for various training programs and a listing of reference books and videos are available.
- New Employee Orientation – A self-paced, new employee orientation program is available on the Water Board’s intranet. The program provides an overview of the Cal/EPA, the Water Boards, pertinent Water Board policies and employee benefits. Employees sign a self-certification form that is given to the supervisor for the employee file.
- Employee Mentoring – Informal mentoring or job-shadowing is encouraged throughout the Water Board. This informal program seems to be more successful than the previous formal program.

Regional Boards – In addition to the opportunities available thru the Training Academy, Regional Boards provide resources, opportunities and activities for employee development. Though generally consistent throughout the nine Regional Boards, these offerings are also dependent on the unique situation of each Regional Board. Though a training budget is created each year by each Regional Board, distribution of those monies is unique to each. The following exemplify employee development offerings by Regional Boards.

- Annual Performance Evaluation – The annual employee performance evaluation is capitalized upon as an opportunity to discuss employee training needs, professional/career interests and development opportunities. The evaluation provides the opportunity to discuss the Individual Development Plan of each employee.
- Training Academy – Regional Boards encourage employees to take advantage of offerings through the Training Academy, especially leadership training.

- Mandatory Training – State of California and federal law designate certain mandatory trainings for technical or regulatory activities. Regional Boards provide applicable employees with opportunities to receive such training.
- Regional Board Based Training – Dictated by local needs, individual Regional Boards provide internal training when applicable. This is offered through venues such as on-the-job training, monthly training sessions, field visits, annual refresher training, cross-function training, technical writing training and non-programmatic learning through experience.
- External Professional Training – On an as-needed basis Regional Boards provide opportunities for necessary professional training outside of the Water Board.

Employee Retention

Regional Boards

- Flexible/Alternative Work Schedule – Several Regional Boards offer their employees flexible/alternative work schedule opportunities. This effort has had positive results and has created challenges for operational effectiveness.
- Employee Rotation Opportunities – A number of the Regional Boards offer either a formal or an informal program through which employees can rotate to different positions within the Regional Board, e.g. from one division to another. These rotation opportunities are voluntary for the employees

Succession Planning

Regional Boards

- Legacy Information Sharing – Several Regional Boards have formulated a legacy information sharing process by which critical institutional knowledge can be gathered, preserved and shared.

APPENDIX F

WATER BOARD TRAINING ACADEMY

2006-06 CURRICULUM EVALUATION DATA

**2005-2006 WATER BOARD TRAINING ACADEMY
CURRICULUM AND EVALUATIONS**

<u>Course Title</u>	<u>Appropriate Level</u>	<u>Quality of Instruction</u>	<u>Met Objectives</u>
Science and Art of Leadership	93%	9.2	71%
Analysis of Biological Assessment Data Workshop			
SWAMP Collaborative Workshop	100%	9.0	95%
Science and Art of Leadership	92%	8.1	83%
Work of Leadership	100%	9.2	61%
CEQA for Water Rights	99%	9.6	100%
Lead The Way Workshop		8.5	
Leading Change	94%	9.1	87%
Analytical and Technical Writing for Water Rights	88%	8.1	66%
Muddling through Modeling: An Introduction to Fluvial Hydraulic Modeling Applications	100%	9.1	85%
Leading Change	91%	9.4	90%
CEQA for Water Rights			
Channel Stability Analysis and Bio-Technical Based Stream Bank Protection	95%	8.8	94%
Work of Leadership	100%	8.7	82%
Lead The Way Workshop		8.8	
Analytical and Technical Writing for Water Rights	72%	8.3	94%
Science and Art of Leadership	95%	8.6	95%
Public Participation Workshop for CA Water Boards- Pilot	57%	8.1	70%
Performance Evaluations: Facilitating Employee Growth	65%	8.2	46%
Training Academy Workshop			
Lead The Way Workshop		9.0	
Work of Leadership	100%	9.6	85%
Public Participation Workshop for CA WaterBoards, LA	88%	8.6	88%
Public Participation Workshop for CA WaterBoards, R 7 Palm Desert	100%	9.1	88%
The Work of Leadership	100%	9.5	71%
Public Participation Workshop for CA WaterBoards, R 3 Central Coast	90%	9.3	93%
Harnessing Complexity	82%	9.1	100%
Public Participation Workshop for R 5R Central Valley	83%	7.7	64%
Public Participation Workshop for R1 Santa Rosa	91%	8.6	95%
Leading Change	100%	8.6	89%
SWAMP Advisor For QAPP Preparation	83%	8.5	91%
SWAMP Advisor For QAPP Preparation	100%	9.8	100%
Public Participation Workshop for CA WaterBoards R 6 Lahonthan (Tahoe)	89%	9.0	94%

Leading Change	94%	9.2	76%
Public Participation Workshop for CA Water Boards - San Diego - Region 9	75%	8.3	76%
Public Participation Workshop for CA Water Boards - Fresno - Region 5			NO EVALS
Performance Evaluations: Facilitating Employee Growth	80%	8.5	60%
Public Participation Workshop for CA Water Boards - Oakland - Region 2	78%	8.3	72%
Applied Environmental Statistics	78%	8.9	88%
Public Participation Workshop for CA Water Boards - Redding - Region 5	85%	8.6	92%
Geosynthetics and Their Performance In Landfill			
Lead The Way Workshop		7.8	
Public Participation Workshop for CA Water Boards - Riverside - Region 8	97%	9.1	83%
Lead The Way Workshop		9.3	
Analytical and Technical Writing for Water Rights	82%	7.5	76%
Leadership in the Performance Review			
CEQA for Water Rights	89%	9.0	88%
Water Quality Goals		9.6	
Performance Measure and Management			
Lead The Way Workshop		8.5	
Technical Writing - Being Clear and Concise	86%	9.0	77%
The Science and Art of Leadership			NO EVALS
Technical Writing - Being Clear and Concise	52%	8.4	72%
Toxicity Testing Applications for NPDES Permit Writers			
Toxicity Testing Applications for NPDES Permit Writers	78%	8.5	100%
Water Resource Enforcement Workshop - More Than Pollution: Fraud and Other Water Crimes			
The Work of Leadership			
Project Assessment and Evaluation Plans	84%	7.4	85%
The Science and Art of Leadership	100%	8.1	82%
Project Assesment and Evaluation Plan (PAEP)			
Project Assessment and Evaluation Plans	100%	9.3	83%
Lead The Way Workshop		8.0	
Harnessing Complexity			
Applied Environmental Statistics	71%	8.8	72%
California Aquatic Bioassessment Workgroup	94%	8.4	86%
Leading Change (Supervisors Only)			
Nondetects and Data Analysis	73%	8.7	86%
Waterboard's Enforcement Plan - Fraud			
Technical Writing - Being Clear and Concise			
Making The Transition to Supervision	82%	9.2	59%
Waterboard's Enforcement Plan - Fraud	94%	9.0	94%

SWAMP Monitoring Design Training	48%	7.6	65%
Technical Writing - Being Clear and Concise			
SWAMP Quality Assurance Workshop	94%	8.4	88%
Lead The Way Workshop			
SWAMP Monitoring Design Training	73%	6.1	32%
Quality Assurance for Projects Compatible with SWAMP			
SWAMP Quality Assurance Workshop			
Negotiating and Facilitating in a Collaborative Process			
Leading Change			
Technical Writing - Being Clear and Concise	88%	9.1	88%
Making The Transition to Supervision			
TMDL Project Management Training			
Technical Writing - Being Clear and Concise	70%	8.3	60%
Water Quality Goals	67%	8.8	83%
Lead The Way Workshop		8.3	
TMDL Project Management Training	88%	8.8	94%
TMDL Project Management Training	61%	8.6	100%
TMDL Project Management Training	89%	9.0	94%
Irrigated Agricultural Lands Training	78%	8.6	93%
Lead The Way Workshop		9.3	
TMDL Training Workshop			
Lead The Way Workshop		8.3	
TMDL Project Management Training	95%	8.7	95%
TMDL Training Workshop - CA Nutrient Numeric Endpoints Training Workshop			
All Cleanup Programs Rountable			
Leadership in the Performance Evaluation: Facilitating Employee Growth	100%	9.1	90%
The Work of Leadership	88%	9.4	87%
Analytical Skills Certificate Program			
The Work of Leadership	91%	10.0	90%
Administrative Professionals Forum	91.00%	9.5	95%
Lead The Way Workshop		8.8	
Administrative Professionals Forum			NO EVALS
Lead The Way Workshop		8.0	
Leading Change	75%	9.2	87%
Making The Transition to Supervision			NO EVALS
Lead The Way Workshop		9.5	
Delegating for Diehards			NO EVALS
The Science and Art of Leadership	100%	9.4	88%
TMDL Annual Training Workshop	79%	8.2	97%
Getting Your Basin Plan Amendment Approved	77%	8.6	81%
Competency Based Interviewing			NO EVALS

Getting Your Basin Plan Amendment Approved	94%	9.0	94%
The Science and Art of Leadership	95%	8.9	68%
Leading Change	96%	8.7	57%
Lead The Way Workshop		0.8	
Making The Transition to Supervision			
Introduction to arcGIS for the Water Boards	98%	9.3	100%
The Power of Vision - Release the Potential			
NPDES Permit Writers Course	91%	8.9	86%
Regulation and Impact Assessment of Once-Through Cooling Systems of California Coastal Power Plants	92%	8.8	88%
FISH! Catch the Energy, Release the Potential (workshop)		8.3	
Whale Done! The power of building positive relationships (workshop)		8.5	
Introduction to arcGIS for the Water Boards	75%	9.3	95%
Developing Employee Accountability			
Water Quality Goals	93%	9.1	95%
Developing Employee Accountability			
Geosynthetics and their Performance in Landfill Construction	90%	9.6	96%
Getting Your Basin Plan Amendment Approved	89%	8.3	85%
Protecting CA's Waters	85%	8.3	81%
Introduction to arcGIS for the Water Boards			
Moving Beyond Paradigms		9.3	
Waste Water Treatment Operation	90%	8.8	94%
What has your Basin Plan Done For You Lately?			NO EVALS
Delegating for Diehards			
Writing for Scientific Professionals: How to be Clear and Concise			
Delegating for Diehards			
Water Quality Goals	93%	9.3	92%
Designing an Effective Stakeholder Process	100%	9.6	88%
Writing for Scientific Professionals: How to be Clear and Concise	84%	8.8	80%
Water Quality Goals	100%	9.8	85%
Difficult Conversations: How to discuss what matters most (managers & supervisors only)			
Introduction to arcGIS for the Water Boards	86%	9.2	90%
The Power of Building Positive Relationships			
Competency Based Interviewing			
Difficult Conversations: How to discuss what matters most			
Competency Based Interviewing			

California Aquatic Bioassessment Workgroup (CABW) Workshop			
Water Quality Goals	96%	9.0	82%
Water Quality Goals	100%	9.4	83%
Database Development, Training and Outreach Ag Waiver for Ducks Unltd.			
Database Development, Training and Outreach Ag Waiver for Modesto, Turlock, Oakdale			
Database Development, Training and Outreach Ag Waiver for Westside SJ Watershed			
SWAMP Database and Applications Training (at State Board and other venues)			

APPENDIX G
SUMMARY OF TRENDS INPUT

STATE WATER RESOURCES CONTROL BOARD INPUT ON TRENDS

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
MISSION FOCUS												
Movement from a primarily engineering organization focused on point-source pollution (waste water treatment facilities) to a more diverse employee base (geologists for ground water and environmental scientists for surface water) addressing non-point source pollution, land use, water quantity, etc	X	X		X	X	X	X		X	X	X	X
Increasing demands regarding land-use		X	X		X			X			X	
Increased focus on water rights issues	X		X	X	X	X		X		X	X	X
Non-point pollution management will increase		X		X	X	X					X	
All medium approach to water quality	X	X	X								X	X
Continued need for science-based decisions	X			X	X	X	X		X	X		
Professionally competent staffed replaced by generalists		X			X	X			X			
Growing population impacting water quality and quantity	X	X	X		X		X	X	X		X	
More decisions are politically driven	X	X	X	X	X	X			X	X		
Increased amount of litigation	X	X	X	X	X	X	X		X	X		
Focus towards permitting rather than water quality									X			
Competing priorities	X	X		X				X	X			

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
WORKLOAD												
Unfunded mandates – increasing workload without commensurate resources and personnel		X		X	X	X	X		X	X	X	X
Lack of resources prevents implementation of required programs				X		X	X		X	X		
Increasing demand for work to be accomplished while politicians do not want to expand government		X			X	X				X		
Greater workload without prioritization by leadership		X	X	X	X	X	X		X	X	X	
Greater workload without resources leads to burnout				X	X						X	
Workload leads to increased pressure to work beyond normal hours										X		
Increased urban development leading to increased work											X	
Loss of personnel positions results in remaining personnel taking on more work		X	X	X	X		X		X	X	X	X
Increasing workload of cases that are complex and controversial	X	X	X	X				X	X	X	X	X
Increasing complexity of cases leading to more collective opposition and litigation requires more thorough and scientifically sound work that requires more time	X	X			X		X			X	X	
Increased workload and parallel increased stress level					X		X			X		
Increased amount of time doing administrative and clerical work as well as data entry	X		X	X	X		X		X	X		
Bean counting	X			X	X	X			X			
Budget dictates workload focus – work based on funding rather than if it is a priority as a water quality issue				X					X			
Tremendous back-log of cases	X						X		X			
Increasing number of dischargers									X			

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
EMERGING ISSUES												
Emergent pollutants in water that impacts air quality, human health, etc	X	X	X		X	X	X		X	X	X	
Emergent pollutants are able to be detected more precisely and at finer levels	X						X			X		
There will need to be development of standards for emergent pollutants	X				X	X	X			X		
Need to be more proactive regarding emergent contaminants		X		X	X	X	X		X		X	
Climate change leading to increasing environmental awareness	X				X	X	X		X		X	
Alignment of political will and water quality/quantity needs is increasingly fluid				X		X					X	
Bio-terrorism, mines, salt levels in soil, ag related issues, pharmaceuticals, dry cleaning, bacteria, invasive species, habitat protection	X	X		X	X	X			X			X

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
EXTERNAL STAKEHOLDERS												
Increasing sophistication of stakeholders – need peer review process earlier in WRCB/WQCB processes		X		X	X	X				X		X
Increasing expectation for transparency and responsibility to the public	X	X	X		X	X					X	
Increasing need for skills to facilitate public participation	X	X	X	X	X	X				X	X	
Greater public awareness results in increased number of problems being reported by the public	X	X							X	X		
Increasing accountability of individuals and local jurisdictions	X				X				X		X	
Increasing penalty amounts will make it cost effective for dischargers to challenge Board decisions, standards and action		X			X					X		
Increasing influence of special interest groups				X					X		X	
Increasing negotiation and facilitation of solutions rather than strict black/white regulatory decisions	X	X		X						X	X	
Legislation requiring mandatory enforcement & penalties					X					X	X	
Customer service (helping regulated community be successful) vs enforcement and regulation	X			X	X					X		
Increasing amount of work in the office – especially responding to challenges and fires – rather than field presence to develop proactive relationship with regulated community	X		X	X	X					X		
Increased need for inter-agency coordination and collaboration	X	X		X	X				X	X		
NEW SKILLS												
Need for project management skills				X	X		X			X	X	X
Technical Training			X				X		X	X		
Management Training			X				X		X	X		
Investigatory and Negotiation skills							X		X			
Economic impact and risk assessment skills	X	X		X		X						

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
CHANGING BUSINESS MODEL												
Increasing use of contracted services – rather than growing the Agency			X	X	X	X	X		X	X	X	X
Increased use of contracted services leaves Water Board less in touch with projects				X			X			X		
Increased use of contractors creates loss of skills for Water Board employees				X		X	X			X		
Increased use of contractors necessitates supervisory role by Water Board employees for quality assurance				X		X	X		X			
Increasing use of grants and loan leaves Water Board in primarily administrative role		X	X	X		X				X	X	
Permitting programs losing funding, staff and resources so there is a huge back-log of applications		X		X							X	
Transfer of water quality responsibility to local government entities because of lack of Water Board resources										X		
Increased use of fee-for-service	X				X		X		X	X	X	
Fees lowered without reducing work-load											X	
Increased bureaucracy					X				X			
Lack of administrative/clerical support	X	X		X					X			
Not conducting field research, field data collection & sampling					X	X						
Take regulatory action but no follow-up				X	X							

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
BASIC DOCUMENTS												
Basin Plans are increasingly being used in ways beyond which they were originally designed – no thorough review process	X				X				X	X		X
Basin Plans are used by regulated community to focus on inconsistencies									X		X	
There is an on-going, unresolved internal conflict between a watershed approach and a program approach to conducting the work of the Board		X		X	X	X			X	X	X	X
TMDLs have taken far more resources than originally anticipated – more time to create, more sophisticated stakeholders, increasing public participation and need for peer review. Complexity not understood by leadership.	X	X		X	X	X	X		X			X
TMDL implementation was not prepared for in an adequate way, i.e. expense, monitoring, management, etc	X	X		X	X	X	X			X	X	X
Increased list of impaired water bodies results in increased need for TMDL				X								X
Increased awareness of CEQA inadequacies for providing guidance for new issues and regulations									X			

Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
DATA/INFORMATION MANAGEMENT - IT												
Technology needed for Board to accomplish its work	X	X	X	X	X	X	X	X	X	X		
Increasing reliance on data management systems to provide information to an increasingly diverse number of stakeholders	X	X	X			X		X	X	X		X
Increasing need to rely on a data management systems yet a satisfactory system is not in place	X	X	X	X	X	X	X	X	X	X		X
The development of CWIQS lacks adequate personnel for data entry, guidelines and functionality							X		X	X		X
Need for dedicated resources and specialized personnel for CWIQS							X		X	X	X	
Movement from IT in each Region to centralized IT has not served the Regions very well	X		X		X	X			X	X		X
The Board collects and dischargers provide huge amounts of data but no effective data management system to use data		X	X		X	X		X	X			X
Paperless office and information management is not user friendly – internal or external		X		X			X		X	X		
Increasing number of on-line regulatory programs and Water Board is without adequate IT resources to support them				X					X	X		
Need for GIS capabilities	X	X		X	X	X			X			
Need for web-site development	X	X							X			
PERSONNEL												
More environmental scientists and geologists because of unavailability of engineers											X	
Continued confusion over right mix of engineers, geologists, and environmental scientists	X	X		X			X	X			X	X
Increasingly difficult to attract new candidates due to living expenses in relation to pay	X											X
Increasingly the recruitment/hiring practices are making it difficult to hire qualified people		X				X				X	X	
Change in limiting hiring practice to only one classification	X	X		X	X					X	X	
Increasing competition from other public sector entities rather				X						X	X	

than private sector for qualified employees – rather than private sector												
Increasing problems with employee commuting – relationship of location of offices and living expense – need for flexible work schedule and more video conferencing facilities					X							X
Increased number of women in management roles										X		
Loss of institutional knowledge			X	X	X	X	X		X	X		
Trends Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
STATE/FEDERAL STATE/STATE												
Federal government getting out of environmental role and handing responsibility to states			X		X	X					X	
Water Board is not proactively advocating its Mission to other State agencies	X	X		X	X	X			X	X		
STATE/REGION BOARD RELATIONSHIP												
Decreasing level of discretion in handling a case – Regional Board seems to be marginalized					X	X			X	X		
Regional Boards can be micro-managed by State Board		X							X	X		
Increased standardization is more efficient but insensitive to unique needs		X								X		
Lack clear coordination and consistency of policy implementation, when appropriate, between State and Regional Boards	X	X		X	X	X		X	X	X		
Protracted contracting process	X		X			X		X	X		X	X

APPENDIX H

SUMMARY OF RETENTION INPUT

**STATE WATER RESOURCES CONTROL BOARD
INPUT ON RETENTION**

Retention Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
Mission – ability to make a difference for water quality	X			X	X	X		X	X	X	X	X
Perceived eroding of Mission due to politics, squeaky wheels, putting out fires, bureaucracy	X				X	X			X	X		
Pay Parity between ES, EG and WRCE – causing low morale	X			X	X	X	X	X		X	X	X
Pay Parity with other government agencies	X	X		X	X	X	X	X	X	X	X	X
Pay Parity with public sector	X			X	X	X	X	X	X		X	X
Engineer and geologist pay raises appreciated	X	X							X	X	X	X
Health benefits	X	X			X	X	X		X	X		X
Retirement benefits	X	X			X	X	X		X	X	X	X
Perception benefits are being eroded				X					X	X		
Need for cost of living adjustments	X			X	X		X		X	X		
Water Board not doing anything for retention		X	X	X	X	X	X		X		X	
Training Academy	X	X		X		X	X		X	X	X	X
Informal Training – On-the-job training	X	X		X			X	X	X	X		
Need public participation training	X											
Mentoring – some being done but mostly need more		X		X	X			X	X	X	X	
Need for out-of-state professional training opportunities	X			X		X	X		X		X	
Gaining project management experience, lead-person opp.		X			X				X	X		
Greater need for reliance on good science for decision-making	X					X	X					X
Advanced degrees not recognized, no incentive for further ed.	X			X	X	X			X			
Huge learning curve		X			X	X						
Work-life balance	X	X			X		X		X	X	X	
Flexible schedules	X	X		X			X	X	X	X	X	
Tele-commuting	X			X			X	X	X			X
Reduced time-base							X					
Flexible schedule opportunities not available to management		X										
Rotational experiences – available, inconsistent, used sometimes to move problem employee	X	X		X	X		X	X	X	X	X	

Retention Input	Engineering Geologist	Senior EG	Supervising EG	Environmental Scientist	Senior ES	Staff ES	EPM I	EPM II	WRCE	Senior WRCE	Supervising WRCE	Principal WRCE
Alternate commuter forms supported	X	X		X				X	X	X		
How we do as good managers & leaders	X			X	X		X	X	X			
Improve communication, overcome communication bottlenecks	X			X	X	X	X		X			
Career guidance – use of Individual Development Plans								X	X		X	
Lack of promotional opportunities	X	X	X	X	X	X	X		X	X	X	
Incentives for promotion to management are minimal		X		X					X	X		
Performance appraisals used for development & at all levels	X	X			X	X	X		X		X	
Lack of accountability for low performances		X		X		X	X	X	X	X	X	
Lack of understanding of work by managers	X				X	X				X		
Perceived favoritism or retribution	X	X		X	X	X			X	X		
Perceived lack of support by management	X		X	X	X				X			
Perceived lack of trust						X						
Increased work load	X		X			X			X	X	X	
Good work means more work						X						
Slow hiring process, need for more frequent exams	X	X		X								
Limited pool of applicants		X	X		X						X	
Confusing state personnel practices and personnel bureaucracy	X	X					X				X	
Doing less professional work and more data entry, administrative, clerical and bean-counting work	X						X		X		X	
Data management failures			X									
Lack of IT resources and support	X		X				X		X	X		
Need for more support staff	X	X	X				X		X	X	X	X
Employee Orientation – depersonalized on the web			X					X	X			
Lack of employee recognition – formal and informal	X	X	X	X	X	X	X	X	X	X	X	
More internal professional resources, e.g. journal subscriptions						X	X					

APPENDIX I

TASK DESCRIPTIONS, BY CLASSIFICATION, GATHERED DURING WORKFORCE ANALYSIS, STEP ONE

WRCB Water Resource Control Engineer, Range B	page 84
WQCB Water Resource Control Engineer, Range C	page 85
WRCB Water Resource Control Engineer, Range C	page 87
WQCB Water Resource Control Engineer, Range D	page 89
WRCB Water Resource Control Engineer, Range D	page 92
WQCB Senior Water Resource Control Engineer	page 93
WRCB Senior Water Resource Control Engineer	page 96
WQCB Supervising Water Resource Control Engineer	page 98
WRCB Engineering Geologist, Range B	page 101
WQCB Engineering Geologist, Range C	page 102
WRCB Engineering Geologist, Range C	page 105
WQCB Engineering Geologist, Range D	page 106
WRCB Engineering Geologist, Range D	page 110
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WQCB Environmental Scientist, Range B	page 116
WRCB Environmental Scientist, Range B	page 119
WQCB Environmental Scientist, Range C	page 121
WRCB Environmental Scientist, Range C	page 125
WQCB Senior Environmental Scientist	page 127
WRCB Senior Environmental Scientist	page 130
WQCB Staff Environmental Scientist	page 132

WATER RESOURCE CONTROL ENGINEER - RANGE B State Board

A Water Resource Control Engineer - Range B - may perform the following tasks:

Grants and Loans:

1. Manages loans and grants across programs from beginning (recruit applicants and help in developing projects through Task Forces) and help align projects to Water Board funding needs; responds to application questions; facilitate drafting of agreements with State Board and establishing budgets; reviews drafts, deliverables and final reports; conducts site visits and provides quality control oversight; monitors progress throughout life of loan/grant and administers invoices.
2. Reviews grant and loan proposals to determine eligibility and prioritization of funding/impact.

Permits:

1. Facilitates state-wide permits for other State agencies (e.g. CalTrans) with Regional Boards; drafts permit language for future permits; review permits from Regional Boards to discover best management practices for technology; negotiates compliance for storm water management plans.
2. Facilitates public meetings to receive input for developing permit language and reviewing impact of permit on all stakeholders.

Programs:

1. Articulate annual progress to USEPA, CalEPA and other related stakeholders regarding program issues, success rate of projects being administered, funding activity and projections.
2. Conducts workshops to describe program needs and impacts to the public
3. Reviews previous reports to evaluate effectiveness of programs and evaluate future program adjustments.
4. Provides information through presentations to the State Board about program project(s) for action by the State Board

Other:

1. Develops, maintains data bases for internal use, reporting to other agencies, and integrates various data bases.
2. Facilitates inter-agency meetings

WATER RESOURCE CONTROL ENGINEER – RANGE C **Regional Board**

A Water Resource Control Engineer – Range C – may perform the following tasks:

Regulatory Compliance:

1. Reviews applications, technical reports and compliance documents (e.g. Waste Discharge requirements, 401 Certifications, enforcement actions, hydromodification management plans, Nutrient Management Plan, Design Reports, Ground Water Corrective Action Plans, CEQA documents, storm water pollution prevention plans) for public and private sector dischargers for compliance with State and Federal laws and regulations and Water Board policies or to determine water quality impacts.
2. Conducts site inspections for compliance with permits and Regional Basin Plan.
3. Collects or oversees the collection of water or soil samples to determine compliance with permit requirements or site assessment.
4. Prepares permit requirements including monitoring and reporting programs.
5. Prepares enforcement orders (e.g., Clean-up and Abatement Order, Cease and Desist Order, Administrative Civil Liability, Time Schedule Order, Notice of Violations).
6. Communicates requirements to potential dischargers and monitors follow-up to enforcement actions.
7. Prepares comments on applications, submittals, mitigation plans and results and other monitoring reports to ensure consistency and compliance.
8. Attends meetings and conducts workshops to assure technical, written and verbal consultation, to verify implementation of work plans and compliance with maintenance plans.
9. Facilitates settlement offers of violations.
10. Provides testimony for lawsuits.

Outreach:

1. Collaborates with other regulatory agencies (local, state and federal agencies) and private entities (e.g. commercial laboratories, and irrigation districts) to assure compliance with program requirements.
2. Communicates and interacts with stakeholders to provide information, answer questions, and clarify requirements by coordinating, facilitating and presenting at stakeholder meetings.
3. Prepares and presents educational material or fact sheets to stakeholder groups and constituents.
4. Interacts with stakeholders to develop recommendations for Board action.
5. Responds to inquiries from press or provides appropriate contact person.
6. Responds to complaints from the public.

Technical Expertise:

1. Evaluates engineering and hydrogeomorphic designs and confirms engineering calculations related to project submittals and describes standards or requirements to be protective of water quality.
2. Performs calculations to evaluate whether an engineering design is acceptable in a situation when calculations are not provided.
3. Evaluates research reports, documents and monitoring data to determine environmental impact to soil and water quality.
4. Interprets analyses, report requirements and policies to assure they are consistent with State and federal policies and regulations.
5. Reviews Quality Assurance Project Plans.
6. Develops TMDL reports and List of Water Quality Limited Segments.
7. Develops objectives and policies for the Basin Plan.
8. Performs CEQA analysis.
9. Prepares and presents staff reports for Board meetings.
10. Develops and presents process flow diagrams demonstrating compliance requirements.
11. Evaluates data and performs statistical analysis.
12. Continues professional development through Board, Division, workgroup and section meetings, round table focus groups and trainings.
13. Reviews design of waste water treatment facilities including facility placement and discharge locations with respect to surface and ground water and soil lithology.
14. Evaluates storm water treatment and conveyance systems for functionality and water quality protection effectiveness.
15. Reviews designs of landfills with respect to CCR minimal design requirements and reviews alternative designs not meeting minimal requirements for satisfying protection of water quality.
16. Evaluates and performs human health and ecological risk assessments.
17. Keeps current on ecological trends, new technologies and regulatory measures.

Grants and Contracts:

1. Develops and/or manages program contracts.
2. Oversees Supplemental Environmental Projects

Administrative:

1. Provides inter-group information dissemination.
2. Demonstrates ability to interact with staff.
3. Tracks payment/lack of payment of permit fees.
4. Performs data base management.

WATER RESOURCE CONTROL ENGINEER – RANGE C State Board

A Water Resource Control Engineer – Range C – may perform the following tasks:

Site Visit Follow-up:

1. Writes reports and correspondence to dischargers based on observations made during site visits – to provide direction for improved compliance.
2. Site visits – when find something drastically wrong – develop administrative civil liability – can be appealed to the Board for a hearing – work with attorney (internal), provide written testimony and provide verbal testimony.

Formulation of State-wide Policies, Procedures, Etc.

1. Coordinates data acquisition (or review data collected by contractors) and assessment of data to formulate action plans to mitigate and track implementation plans and make needed adjustments to reach targets
2. Above leads to permits, orders, conditional waivers and monitoring and reporting plans that are developed by Regional Board and State Board. Development of standards and limitations as part of the review and permit writing process
3. Reviews legislation for reactions/responses by the public to capture issues related to the legislation and permits
4. Does above across the Regional Boards – e.g. irrigated ag processes – for program coordination state-wide
5. Develop visionary goals for permit standardization, supports team efforts for development of standardized permits and responds to public and regulated community's concerns about the permit and processes standardized permit for State Board adoption
6. Provides support and training for State-wide policy implementation, interface between Regional Board and State Board units to address problem issues, and provides rationalization of and recommendations for case-by-case permitting decisions where policy or regulations are inapplicable or non-descript.
7. Above extended out to stakeholders involved (e.g. DPR, regional conservation districts, Farm Bureau, UC Davis farm advisors and county ag commissions).

Supports State-Board Appeal Function:

1. Provides technical evaluations to petitions filed in response to Regional Board actions which requires thorough review and familiarity with administrative records; provides technical support to attorneys (internal or Attorney General) concerning the NPDES/WDR policy or permitting issues



Other Functions:

1. Provides State and Regional Board presentations on technical issues and proposals.
2. Develops fee schedules for budget purposes.
3. Provides supervision and guidance to student interns.
4. Develops data base resources to meet program/projects needs.
5. Responds to general public questions about Water Board programs, policies and regulations.
6. Interfaces with non-point source programs.

WATER RESOURCE CONTROL ENGINEER – RANGE D

Regional Board

A Water Resource Control Engineer – Range D – may perform the following tasks:

Regulatory Oversight:

1. Reviews applications, technical reports and compliance documents (e.g. Waste Discharge requirements, 401 Certifications, enforcement actions, hydromodification management plans, Nutrient Management Plan, Design Reports, Ground Water Corrective Action Plans, CEQA documents, storm water pollution prevention plans) for public and private sector dischargers for compliance with State and Federal laws and regulations and Water Board policies or to determine water quality impacts.
2. Develops implementation plans, technical documents and discharger requirements.
3. Drafts communication with dischargers to clarify requirements, to require additional information and to direct further action as necessary.
4. Reviews and evaluates reports of waste discharge and 401 Certification applications for accuracy and completeness.
5. Drafts orders for Board consideration.
6. Drafts 401 Certifications for issuance by the Executive Officer or Regional Board.
7. Evaluates interim and final remedial action proposals.
8. Reviews and evaluates technical reports to determine if the remediation is effective to protecting water quality, the level of compliance by discharger, the appropriateness of the monitoring plan, and the applicability of closure plans, post-closure maintenance plans, construction quality assurance plans and reports.
9. Reviews and evaluates facility documents and permits in order to obtain details necessary to conduct a complete inspection and monitoring.
10. Provides written follow-up communication with discharger describing status of facility, inspection reports, transmittal letters and/or descriptions of violations.
11. Responds to questions from discharger, responsible parties and their consultants.
12. Conducts site inspections to verify compliance with Basin Plan guidelines, verify accuracy of proposed remedial action plan or site assessment, compliance with Water Board or EO orders, verification of discharger submitted information, complaint follow-up, potential violations.
13. Reviews and evaluates reports from dischargers (e.g. self-monitoring reports, annual reports, technical reports) to assess compliance and the need for enforcement.

Management/Administration:

1. Tracks violations, inspections, regulatory measures, and remediation actions in appropriate databases.



2. Drafts various types of orders (e.g. permits, site clean-up, fines and enforcement orders, information requirements) to comply with State and Federal laws, regulations, plans and policies.
3. Manages regulatory projects, schedule of work and accomplishment of deliverables.
4. Reviews and evaluates monitoring reports to ensure compliance with orders or effectiveness of existing treatment
5. Provides lead person role for special projects.
6. Mentors and trains Range A and Range B WRCE and provides peer review.
7. Supervises engineering student assistant.
8. Manages, tracks and reports regulatory programs, prepares work plans and estimates of work for each fiscal year.
9. Participates in the hiring process for other engineers including resume review, interviewing, checking references and making recommendations.
10. Evaluates and provides feedback on various state databases and processes.

Outreach:

1. Responds to inquiries from public for information about public concerns within Regional Board's jurisdiction.
2. Provides outreach to public to communicate policy directions, implications and pending decisions.
3. Collaborates with other regulatory agencies in inspections, monitoring and generation of reports.
4. Interacts with staff of other agencies at local, state and federal levels to, e.g. coordinate cleanup, discuss policy or permit development, and enforcement actions.
5. Provides educational presentations to schools, school events and colleges about water quality practices for everyday life.

Grants and Contracts:

1. Reviews proposals and makes recommendations for ranking.
2. Participates in the development of the scope of work for incorporation into the grant or contract document.
3. Manages grants with various entities on projects for implementation the intent of the legislation.
4. Advises grantees on Boards guidelines regarding technical direction, avoidance of logistical obstacles and alignment with Board goals.
5. Reviews and processes invoices and contract deliverables on grants and other contracts to ensure that they meet specifications of the contract and Water Board needs.

Technical Expertise Using Professional Engineering Judgment:

1. Provides disciplinary balance with the biologists and geologists.

2. Provides a high level of respect for the Water Board when working with engineers who consult for dischargers.
3. Reviews and offer comments/feedback to colleagues from areas of expertise.
4. Participates in exploration of technical work with staff and external technical advisory committees.
5. Evaluates technical reports and analyzes data to identify appropriate next steps to take for a site or an issue.
6. Prepares and presents technical information for Board or public consideration.
7. Develops, articulates and implements plans, policies and strategies. (e.g. Basin Plan or permit negotiations).
8. Reviews and evaluates engineering designs and documents calling for professional engineering judgment to ensure that the design meets regulatory requirements.
9. Assumes responsible charge for the evaluation of all engineering work.
10. Coordinates the work of engineering professionals, technical or special consultants.
11. Analyzes models and model results contained within technical reports for validity of assumptions, use of correct equations, model variables, model sensitivity, comprehensiveness of data, appropriateness of model itself and to verify results.

WATER RESOURCE CONTROL ENGINEER – RANGE D State Board

A Water Resource Control Engineer – Range D – may perform the following tasks:

1. Provides project management for application for grants/loans to build waste water treatment plants, water recycling plants, etc
2. Reviews water availability analysis to determine potential for use of water as requested by applicant
3. Technical review of plans and specs for projects that will be implemented by applicants
4. Reviews consultants costs for clean-up of contaminated sites – are they reasonable and cost effective
5. Reviews studies to determine if water bodies can adequately assimilate pollutions
6. Reviews projects for conformance with water code and regulations
7. Reviews design of monitoring programs for different types of discharges
8. Reviews underground storage tank case histories for the purpose of determining process towards potential closure
9. Provides testimony as expert witnesses in water rights hearings
10. Provides technical input and support for developing water quality standards (e.g. water flows, water temperature)
11. Provides technical evaluations to State Board for their decision-making process

SENIOR WATER RESOURCE CONTROL ENGINEER Regional Board

A Senior Water Resource Control Engineer may perform the following tasks:

Basics:

1. Acts as the licensed engineer in responsible charge of engineering and geology related work.

Supervision:

2. Supervises staff (WRC Engineers, Engineering Geologists, Environmental Scientists, Sanitary Engineering Associates, students), administrative staff, retired annuitants and students to ensure adequate direction, appropriate prioritization of issues and effective productivity.
3. Provides technical engineering knowledge, guidance and interpretations to the work submitted to or completed by the Water Board.
4. Develops strategies with staff to achieve successful regulatory/nonregulatory actions that implement the directives of upper management.
5. Develops workplans aligned with commitments to State Board and US EPA.
6. Supervises line staff in reviewing and approving technical reports, e.g. investigation reports, remedial alternatives, risk assessments.
7. Reviews staff's technical evaluations and technical interpretations for completeness accuracy, e.g. mass balances, statistical calculations, ground water contour maps and correct use of mathematical formulas.
8. Supervises line staff by developing individual work plans and implementation of work plans by tracking work, establishing milestones and assuring quality work products.
9. Conducts performance reviews of staff, establishes clear expectations and provides documentation for disciplinary actions, e.g. low productivity, tardiness or poor quality.
10. Works with staff on individual development plans to ensure both personal and professional growth.
11. Coordinates, communicates and ensures proper training regarding health and safety issues for staff.
12. Reviews written work of staff for correct grammar, clarity, conformity to Board requirements and consistency with State and federal regulations.
13. Tracks staff productivity for achieving performance objectives regarding inspections, document reviews, meeting participation, all deliverables, etc.
14. Provides technical guidance in developing, incorporating and implementing TMDL waste-load allocations into NPDES permits.
15. Collaborates on case management with staff, dischargers and interested parties to proactively achieve compliance.
16. Communicates effectively with dischargers, their consultants and legal counsel so permit requirements are understood for successful compliance and to receive input from affected parties.

17. Negotiates complex agreements to resolve technical and regulatory disagreements.
18. Facilitates the risk-based clean-up approach.
19. Supervises staff in conducting field and site investigations to evaluate compliance with regulations.
20. Communicates with staff about organizational Mission, goals and objectives.
21. Works collaboratively with other units and divisions within the Region to further the Mission of the Regional Board.
22. Prepares staff for making presentations before Regional Board.
23. Trains staff for data entry and maintaining data bases.

Outreach:

1. Responds to inquiries from the public including phone calls and file reviews.
2. Participates in local, regional and State-wide programs (e.g. roundtable) to ensure efficiency, consistency and effectiveness.
3. Participates in discussions with other Agencies or stakeholder groups regarding water quality issues as Water Board's representative.
4. Nurtures and manages relationships with State Board counter-parts, e.g. approval of Regional Board policies.
5. Delivers presentations to the Board, stakeholder groups and other regulatory agencies.
6. Responds to public (politicians, newspapers, State Board) inquiries and participates in public meetings concerning status of water quality sites and clean-up processes.
7. Develops relationships with stakeholders to foster regular and open communication.
8. Educates permittees about regulatory requirements, emerging water quality issues that may impact them, Board expectations, opportunities and challenges.
9. Coordinates with management appropriate responses to media inquiries.

Other Water Board Tasks:

1. Prepares Board meeting agenda items.
2. Evaluates and reports complaint calls, delegate to appropriate staff and ensure follow-up action.
3. Provides institutional knowledge on history of existing cases.
4. Facilitates the interface of the technical, regulatory and legal aspects of the work of the Board.

Administration and Management:

1. Communicates with upper management to transfer information, track work progress and identify priorities.
2. Recruits, selects and oversees orientation and training of new employees, including student assistants.



3. Oversees administrative tracking of staff, reviewing and signing of time sheets, travel, requests for planned absence, expense claims, training requests, employee time-off, etc.
4. Supervises staff in conducting field and site investigations to evaluate compliance with regulations.
5. 24-Hour Emergency contact for Office of Emergency Services for spill response.
6. Accountable for completion of staff work and completes staff level work as necessary, for example when staff are out of office, when staff having engineering qualifications are not available, or to meet deadlines or other work commitments.
7. Ensures safe working environment and harassment free workplace.
8. Usually given lead on new projects and emerging policies e.g. implementation of new law regarding grants, invasive species, water ballast, etc.
9. Contributes to the development of and maintains positive staff morale.
10. Responds to fire-drill type requests, e.g. urgent State Board inquiries, inquiry from Legislators, newspaper deadlines.
11. Contributes content to monthly EO reports.
12. Mentors to engineers-in-training and provides reference and recommendation for them to become a professional, registered engineer.
13. Mentors staff for promotional exams and promotional opportunities.
14. Attends training to maintain professional abilities, to be abreast of emerging technologies and improve ability to guide and lead staff, e.g. technical and management trainings.
15. Conducts legal research.
16. Maintain file records.
17. Contributes to the development of maintenance of data bases, information management systems.
18. Participates in work groups outside of the Board to address state-wide technical and non-technical issues.

SENIOR WATER RESOURCE CONTROL ENGINEER State Board

A Senior Water Resource Control Engineer may perform the following tasks:

Internal Board Interaction:

1. Conducts roundtable meetings for Regional Board
2. Acts as high level technical expert over a broad programmatic area
3. Prepares and reviews presentations for Board members and presents information items or action items for Board
4. Prepares speeches and talking points for upper management and Board members
5. Oversees preparation of technical reports for petitions of Regional Board or Division decisions or actions

Outreach:

1. Coordinates meetings to forge partnerships of city/county governments
2. Resolves inter-agency and intra-agency staff conflicts (Water Board and others like Fish and Game, CalEPA-BDO, USEPA)
3. Responds to control letters, letters from the public, requests for information from legislature, public
4. Disseminates information to public, other agencies, task forces, etc

Supervision and Administration:

1. Provides program management over a programmatic area – e.g. obtains funding, distributes funding amongst Regional Boards, tracks budget expenditures
2. Develops policies statements and writes guidelines for programmatic area
3. Oversees development of Budget Change Proposals, legislative proposals, and legislative analysis
4. Reviews documents to process letters, invoices, to provide feedback and information to agencies and staff
5. Reviews staff reports of investigations and recommendations for specific enforcement actions
6. Provides for hiring of new staff, deals with personnel issues, documents progressive discipline, conducts performance reviews, approves training requests and travel expenditures – all personnel related issues for programmatic area (Ranges A-D). (Can be supervision of Environmental Scientists, Geologists, clerical staff, etc)
7. Provides guidance for problem solving on behalf of staff
8. Tracks Regional Board activities, work plans and regular reports on plan progress.

9. Development and tracking of programmatic performance measures of which data bases is necessary tool/resource (coordinating between IT and staff to make data bases functional and user friendly)
10. Provides increasing amount of clerical work
11. Responds to calls/emails (inquiries) from the public – delegates response or provides it
12. Oversees updating of website

SUPERVISING WATER RESOURCE CONTROL ENGINEER Regional Board

A Supervising Water Resource Control Engineer may perform the following tasks:

Basic:

1. Acts as the licensed engineer in responsible charge of engineering and environmental related work.

Supervision and Management:

1. Supervises senior engineers, geologists and environmental scientists who, in turn, supervise/manage the work of line level staff to regulate waste discharges; or, supervises senior specialists who report directly to the Supervising WRCE.
2. Supervises administrative and IT staff.
3. Manages acquisition and distribution of resources, implementation of Board policies, development and incorporation of recommendations from staff into action plans for consideration by management.
4. Teaches, guides and coaches senior engineers, geologists, environmental scientists and line-level staff to be proficient with policies and regulations through the development of permit requirements, review of technical information, assessment of compliance status, enforcement of noncompliance and inspection of facilities.
5. Develops water quality standards for surface and ground water and TMDLs for incorporation into the Basin Plan.
6. Develops, through Senior staff, the technical expertise of staff by in-house training and mentoring, through Water Board's Academy, and external training opportunities.
7. Provides second-level review and/or approval of correspondence, reports, permits and enforcement orders to ensure work product quality, consistency and sufficiency with policies and regulations.
8. Supports senior staff to develop team ethic and staff confidence.
9. Evaluates Regional Board agenda items for consideration and scheduling.
10. Works to resolve personnel issues and conflicts to sustain productivity of staff.
11. Supervises senior and technical staff for workload assignments, using appropriate systems such as database tracking.
12. Conducts performance reviews and facilitates preparation and implementation of individual development plans (IDP) for senior level staff.
13. Facilitates conflict resolution between disagreeing parties. Examples include disagreement between staff and dischargers, between advocacy groups and between government agencies.
14. Provides leadership for overall vision and direction of the Division/Section.
15. Tracks progress toward meeting program work plan commitments.

Decision-Making and Setting Policy:

1. Briefs and interfaces with executive level management regarding task completion, policy decisions, work accomplishments, etc.
2. Provides decision-making and direction on policy and technical issues for staff and public to ensure consistency and sufficiency with water quality policies and regulations.
3. Certifies engineering work to assure consistency and compliance with State and regional policies and to assure work products reflect sound engineering theory and practice.
4. Develops policies, programs and procedures to improve water quality protection and quality of administration.
5. Evaluates emerging issues to assess significance for water quality and adequacy of existing programs to meet emerging needs.
6. Reviews and provides feedback on proposed policies and/or guidance concerning State and Regional Water Board programs.

Administration:

1. Reviews and manages expenditures for budget compliance currently and for future budget requirements.
2. Manages expenditures and funding according to each program/funding source.
3. Reviews projections of work plan commitments for coming fiscal year for the Executive Officer and State Board.
4. Tracks Division and program productivity using management tools including databases.
5. Acts as manager of assigned program to assure Region-wide consistency.
6. Provides staff level work when needed or for unique circumstances.

Water Board Exchange of Information:

1. Participates in keeping Board, staff and public informed about Division/Section's activities and issues.
2. Works with upper management (EO, AEO, or designated staff) to respond to inquiries from the press and proactively informs the press about Board activities.
3. Facilitates the exchange of information and discussion/resolution of policy issues, technical issues and personnel issues through staff meetings, Board meetings and management meetings.
4. Attends Board meetings to provide management and technical support to staff and Executive Officer regarding agenda items.
5. Participates in statewide program coordination through mechanisms such as roundtable discussions.
6. Contributes to inter-regional Board discussion and evaluation of state-wide issues.

7. Separation of functions: Acts as either Board technical advisor (If EO has been involved in development of enforcement action.) or as staff team leader presenting enforcement actions.

Outreach:

1. Works cooperatively to create and maintain working relationships of communication and trust with other government agencies to achieve effective water quality control.
2. Coordinates and plans programs with other agencies, including US EPA.
3. Conducts outreach and education for community-based organizations about Board programs and activities.
4. Collaborates with other agencies for mutually consistent plans and policies, consistent water quality standards, implementation plans, etc.
5. Educates the public about water quality issues and how their actions affect water quality. This education includes technical and scientific information, regulatory compliance options, water quality benefits, costs and consequences.
6. Gathers public input, support and ownership for implementation of water quality improvement.
7. Serves as Regional Board ombudsman.

ENGINEERING GEOLOGIST – RANGE B State Board

An Engineering Geologist - Range B - may perform the following tasks:

1. Directs research based programs
2. Groundwater Ambient Monitoring and Assessment (GAMA) – monitors baseline assessment of water quality throughout the State
3. Supports public outreach by responding to technical, logistical or program questions
4. Keeps web site up-to-date
5. Delivers presentations and calls public meetings to introduce GAMA program
6. Monitors contract work with USGS to conduct field samples
7. Gives presentations about findings of sampling, future reports, etc
8. Work with public almost every day – answers questions as appropriate or sends them to supervisor for answering.
9. Produce two reports – data summary report and a interpretive report – Range B reviews reports (Written by USGS)
10. Does all contract work with USGS – lawyers and contract office in Water Board and USGS – budget, deliverable due dates
11. Technical contact for the public

ENGINEERING GEOLOGIST – RANGE C

Regional Board

An Engineering Geologist - Range C - may perform the following tasks:

Regulatory Compliance:

1. Reviews work plans and reports drafted to address environmental impacts, determines compliance with Basin Plan objectives, prohibitions, amendments, standards of practice and laws/regulations/policies.
2. Evaluates geological technical reports and data sets pertaining to: site characterization, slope stability, feasibility studies, corrective action plans, design and construction reports and site closure.
3. Reviews and screens human health and ecological risk assessments against regulatory environmental benchmarks.
4. Reviews ecological restoration (wetland, wildlife habitat) plans.
5. Monitors environmental site remediation progress as stipulated in Water Board orders.
6. Conducts site inspections to ensure overall grant success and compliance with grant agreement.
7. Enforces implementation of technical work by dischargers and/or responsible parties and their subcontractors.
8. Analyzes and interprets water quality data to develop implementation strategies and prepare recommendations for water quality improvement.
9. Analyzes aerial photographs and field inspections to detect potential illegal discharges damaging environmental health.
10. Drafts cleanup orders, abatement orders, discharge orders, enforcement orders (such as 13267) and water quality certifications to meet compliance with laws/regulations/policies.
11. Drafts permits to enable remedial system implementation.
12. Inspects sites to evaluate site conditions, compliance and address complaints for duration of project and recommends measures to be taken for achieving compliance.
13. Accompanies law enforcement to serve search warrants for environmentally impacted sites.
14. Drafts and issues Clean Water Act Section 401 water quality certifications and waste discharge requirements.
15. Drafts and issues municipal storm water permits, and evaluates compliance with permits by cities, counties and developers.
16. Assures compliance with state-wide storm water construction permits.

Technical Expertise:

1. Evaluates surface and subsurface hydrogeology for ground water quality.
2. Characterizes groundwater flow direction and rate.
3. Evaluates subsurface fate and transport of contaminants and associated remedial measures.
4. Evaluates groundwater and surface water interaction.
5. Analyzes groundwater banking.
6. Reviews, comments upon and provides recommendations on well construction.
7. Evaluates multiple aquifer settings and characteristics.
8. Applies geological/hydrogeological principles and practices to technical document reviews.
9. Applies principles of soil science, geochemistry, engineering geology and geomorphology to remedial projects, water quality certification, waste discharge requirements and grant evaluation.
10. Reviews and/or evaluates technical documents to meet compliance with State, Federal and local regulatory agencies.
11. Assess applicability of beneficial use designations.
12. Mentors, cross-trains and advises colleagues and coworkers to building a strong geological think tank at the Water Board.
13. Participates in technical workgroup meetings.
14. Provides Water Board staff technical assistance where geological expertise retained by a Professional Geologist is needed.
15. Provides geological assistance to coworkers (engineers and environmental scientists).
16. Writes and edits reports to provide concise, accurate and timely information to internal staff, Board members and for the general public at large.
17. Reviews and assists GIS mapping projects, hydrologic and hydrogeological conceptual models and reviews analytical models.
18. Evaluates ground water, surface water and mathematical models.
19. Reviews data, e.g. fate and transportation modeling reports, slope stability and geotechnical analysis, geochemical data, materials test results and permeability test results.
20. Reviews, prepares, comments upon and presents CEQA documents.
21. Collects samples through field visits.
22. Reports statistical and trend analysis of water quality data.
23. Maintains and advises State databases used to monitor water quality, site investigations and closures.
24. Creates maps, digitizes water bodies and related features.
25. Develops GIS databases for use in GIS projects.

Supervision/Management:

1. Provides oversight of level-of-work meeting current standards of practice.
2. Prioritizes workload to efficiently use limited resources.
3. Designs project management tools conducive to the work of the Board.

4. Reviews, coordinates with legal counsel and negotiates completion of decision documents, e.g. records of decision, state land use covenants, remedial action plans.
5. Prepares budget reports/grant requests to secure funding or reimbursement
6. Hires and trains students.
7. Manages case files.
8. Provides project management of State funds.
9. Provides data-entry in state-wide data system to track status of regulated sites for public access.

Outreach:

1. Provides regulatory guidance to members of the public who own contaminated property.
2. Responds to public complaints and inquiries.
3. Meets with dischargers, their consultants and the public.
4. Facilitates public meetings of stakeholders and/or individual meetings with a stakeholder to develop environmental cleanup strategy and reach consensus.
5. Responds to public requests for information as part of our customer service mission.
6. Participates in interpretation of interagency laws, practices and goals in collaborative and cooperative manner to determine the scope of our ongoing responsibilities, authorities and priorities in an effort to synchronize the roles of State agencies and further define the functions of the Water Board.
7. Attends public meetings to provide, exchange and obtain information.
8. Advises local, county, and state agencies concerning geological and regulatory issues.
9. Prepares and presents oral presentations pertaining to water quality issues for Board members and the public.
10. Presents scientific and regulatory findings to professional organizations to improve the Water Board's outreach while furthering its mission.

Grants and Contracts:

1. Develops loan and grant programs.
2. Manages grants to ensure overall grant success through design/planning, implementation/construction, monitoring/reporting, and achievement of specific milestones.
3. Reviews quarterly invoices and project status reports for grant management.

ENGINEERING GEOLOGIST – RANGE C State Board

An Engineering Geologist - Range C - may perform the following tasks:

1. Reviews aged cases (17,000+) for underground petroleum tanks to determine reasons for progress or not and can they be closed
2. Reviews aged cases to achieve closure in order to provide funding for new cases
3. Reviews cases to determine if remediation is on right course and that water quality is not being impacted – are low risk cases capable of being closed
4. Provides recommendations for how to achieve closure or to enhance the closure process
5. Reviews these cases for funding purposes and works with Regional Board for implementation
6. Conducts independent investigations based on complaints from the public about Regional Board performance and public wastewater treatment facility performance
7. Conducts cross discipline investigations and provide follow-up enforcement actions
8. Collaborates with district attorneys and internal attorneys to achieve swift and fair enforcement statewide
9. Assists Regional Boards at request or in place of the Regional Boards in moving forward with enforcement actions
10. Manages and/or facilitates the production of CEQA documents

ENGINEERING GEOLOGIST – RANGE D

Regional Board

An Engineering Geologist - Range D - may perform the following tasks:

Basic:

1. Acts in responsible charge capacity.

Regulatory Compliance:

1. Reviews and provides comments on site characterization workplans, remedial action and remedial design workplans and reports on Phase I site assessments, site characterization, remedial investigations, feasibility studies, hydrogeological studies, groundwater fate and transport modeling reports, remediation progress reports, groundwater monitoring plans and reports, remedial system operation and maintenance plans and reports and closure reports for various industrial, DOD, and superfund sites with contaminated soils and groundwater that may potentially contaminate sources of drinking water supplies.
2. Determines compliance with Basin Plan objectives, prohibitions, amendments, standards of practice and laws/regulations/policies.
3. Reviews and evaluates geological and geo-technical workplans, reports and data sets pertaining to site characterization and slope stability.
4. Prepares and oversees implementation of enforcement documents (e.g. 13267 letters), cleanup and abatement orders, administrative civil liability complaints and orders, Waste Discharge Requirement permits, and water quality certifications to ensure responsible party's compliance with Regional Board's requirements defined in accordance with Federal and State laws/regulations/policies.
5. Prepares and issues municipal storm water permits and evaluates compliance with permits by cities, counties and developers.
6. Prepares and issues Clean Water Act Section 401 water quality certifications and waste discharge requirements.
7. Prepares and issues municipal storm water permits and evaluates compliance with permits by cities, counties and developers.
8. Assures compliance with state-wide storm water construction permits.
9. Inspects sites to evaluate site conditions, and ensures compliance with the Regional Board's requirements by overseeing, coordinating, and directing the Board's representatives in order to solve any problems during the conduct of investigations and site clean-up
10. Evaluates surface and subsurface hydrogeology for ground water quality.
11. Characterizes groundwater flow direction and rate.
12. Evaluates multiple aquifer settings and characteristics.
13. Evaluates subsurface fate and transport of contaminants and associated remedial measures.
14. Evaluates groundwater and surface water interaction.

15. Analyzes groundwater banking.
16. Reviews and screens human health and ecological risk assessments against regulatory environmental benchmarks.
17. Reviews ecological restoration (wetland, wildlife habitat) plans.
18. Monitors environmental site remediation progress as stipulated in Water Board orders.
19. Enforces implementation of technical work by dischargers and/or responsible parties and their subcontractors.
20. Analyzes aerial photographs and field inspections to detect potential illegal discharges damaging environmental health.
21. Reviews, comments upon and provides recommendations on well construction.
22. Accompanies law enforcement to serve search warrants for environmentally impacted sites.

Technical Expertise:

1. Registered as a State of California Professional Geologist.
2. Applies geological/hydrogeological principles and practices to technical document reviews, field inspections, project analysis, etc.
3. Consults about geology/hydrogeology/geochemistry within the Regional Board on programs such as TMDL, NPDES and Basin planning.
4. Performs triennial review of the Basin Plan.
5. Applies principles of soil science, geochemistry, engineering geology and geomorphology to remedial projects, water quality certification, waste discharge requirements and grant evaluation.
6. Reviews and/or evaluates technical documents to meet compliance with State, Federal and local regulatory agencies.
7. Provides peer review of out-going correspondence.
8. Assess applicability of beneficial use designations.
9. Mentors, cross-trains and advises colleagues and coworkers to building a strong geological think tank at the Water Board.
10. Participates in technical workgroup meetings.
11. Provides Water Board staff technical assistance where geological and hydrogeological expertise retained by a Professional Geologist and Certified Hydrologist is needed.
12. Provides geological assistance to coworkers (engineers and environmental scientists).
13. Reviews and assists GIS mapping projects, hydrologic and hydrogeological conceptual models and reviews analytical models.
14. Evaluates ground water fate and transports and mathematical models.
15. Reviews data, e.g. fate and transportation modeling reports, slope stability and geotechnical analysis, geochemical data, materials test results and permeability test results.
16. Creates maps, digitizes water bodies and related features.
17. Develops GIS databases for use in GIS projects.

18. Writes and edits reports to provide concise, accurate and timely information to internal staff, Board members and for the general public.
19. Works with other regulatory agencies such as DTSC, USEPA, California Department of Health Services, Fish and Game, Fish and Wildlife Services, county and city personnel, environmental groups, public representatives and public servants, local water agencies, etc. to ensure sites are characterized and remediated as required and that the legal requirements of the Board and other related agencies are implemented.
20. Consults to other Regions in areas of specialized scientific fields.
21. Reviews, prepares, comments upon and presents CEQA documents.
22. Collects samples through field visits, reviews analytical data and generates reports documenting activities, findings, conclusions and recommendation.
23. Reports statistical and trend analysis of water quality data.
24. Maintains and advises State databases used to monitor water quality, site investigations and closures.
25. Designs and maintains databases.
26. Keeps abreast with scientific developments in characterization and remediation technologies, contaminants, fate and transport, and regulatory changes.

Supervision/Management:

1. Acts in lead person designation when necessary.
2. Provides oversight of level-of-work to assure the meeting of current standards of practice.
3. Prioritizes workload to efficiently use limited resources.
4. Designs project management tools conducive to the work of the Board.
5. Reviews, coordinates with legal counsel and negotiates completion of decision documents, e.g. records of decision, state land use covenants, remedial action plans.
6. Prepares budget reports/grant requests to secure funding or reimbursement
7. Hires and trains staff and students.
8. Participates on staff interview panels.
9. Manages, reviews and analyzes case files.
10. Provides project management of State funds.
11. Provides data-entry in state-wide data system to track status of regulated sites for public access.

Outreach:

1. Provides regulatory guidance to members of the public who own contaminated property.
2. Responds to public complaints and inquiries.
3. Meets with dischargers, their consultants and the public.
4. Facilitates public meetings of stakeholders and/or individual meetings with a stakeholder, i.e. to develop environmental cleanup strategy and reach consensus.

5. Attends public meetings to provide information and solicit comments.
6. Responds to public requests for information as part of our customer service mission.
7. Provides public notice meetings, workshops and hearings in accordance with regulatory guidelines and requirements.
8. Participates in interpretation of interagency laws, practices and goals in collaborative and cooperative manner to determine the scope of our ongoing responsibilities, authorities and priorities in an effort to synchronize the roles of State agencies and further define the functions of the Water Board.
9. Prepares and presents oral presentations pertaining to water quality issues for Board members and the public.
10. Attends public meetings to provide, exchange and obtain information as well as offer educational training to public on specific programs.
11. Advises local, county, and state agencies concerning geological, hydrogeological and regulatory issues.
12. Presents scientific and regulatory findings to professional organizations to improve the Water Board's outreach while furthering its mission.
13. Interacts with news media to provide information such as: specific clean-up sites, water quality issues, future permitting issues, current project status, etc.
14. Performs recruitment activities such as job fairs, school presentations, alumni outreach.
15. Gives educational presentations at elementary and high school classes and events.

Grants and Contracts:

1. Reviews quarterly invoices and project status reports for grant management.
2. Reviews technical reports, work-plans, monitoring plans and Quality Assurance Project Plans.
3. Updates budgetary work-plans and tracks milestone achievements.
4. Reviews and evaluates contract/grant project proposals.
5. Participates in the development of contracts/grant project proposals and agreements.

ENGINEERING GEOLOGIST – RANGE D State Board

An Engineering Geologist - Range D - may perform the following tasks:

State Water Board Appeals and Enforcement Function:

1. Evaluates technical data submitted as evidence for water rights hearings and collaborates with attorney or hearing officer in translating technical data related to the case
2. Investigates cases where parties are non-compliant with Water Board laws and regulation
3. Provides technical analysis and comments upon petitions by discharger regarding Regional Board decisions on ground water contamination to determine merit of petition
4. Conducts surveillance, inspections, and investigates site violations at underground storage tank sites, waste water treatment plants, and other facilities
5. Collaborates with district attorneys, USEPA Criminal Investigation Division and US Attorney's Office and Attorney General's Office
6. Coordinates with Regional Boards and local agencies as part of investigation processes

Technical Review and Support:

1. Reviews, comments upon and coordinates report writing by USGS, LLNL and UC Davis related to ground water sampling, technical information and presentation of data to the public
2. Evaluates geological data to determine jurisdictional nature of ground water
3. Prepares legislative bill technical analysis providing comments regarding potential impacts of legislation
4. Provides technical analysis in developing rules and regulations
5. Manages and maintains Geo-Tracker data bases and provides technical geological input regarding data entry and use data to identify and prioritize sites for closure and clean-up.
6. Writes reports, summary reports on ground water sampling in private wells
7. Conducts well sampling field work

Administrative, Policy Development and Board Support:

1. Gathers work load data from Regions and presents to Department of Defense for budget estimates for Water Board reimbursement
2. Evaluates applications for site investigation funding for Brownfields
3. Acts as liaison between various DOD departments, US EPA, and Regional Boards for changes in policies, funding issues, technical disagreements
4. Prepares quarterly reports for US EPA
5. Prepares contracts and task selection for GAMA Program with USGS and LLNL



6. Attends DOD and Brownfield conferences as Water Board representative
7. Prepares agendas for bi-monthly meetings of Regional Boards
8. Prepares issue papers at Board member requests

Outreach:

1. Attends meetings and conferences to provide presentations and training regarding Water Board data, current best practices, and networking with other agencies and professionals
2. Prepares interagency agreements
3. Provides information in response to public inquiries on ground water quality issues
4. Responds to public inquiries regarding water rights issues

SENIOR ENGINEERING GEOLOGIST

Regional Board

A Senior Engineering Geologist may perform the following tasks:

Basic:

Acts as the licensed geologist in responsible charge of geology related work.

Supervision/Management:

1. Supervises geologists/engineers/environmental scientists/land & water use scientist, according to their area of expertise in meeting the Mission of the Board. Such duties may involve preparation of, issuance of, and adoption of regulatory documents (e.g. work plans, inspection reports, discharge monitoring reports and proposed enforcement actions) with special attention to geological issues.
2. Reviews staff work-products (e.g. correspondence, waste discharge requirements) for consistency and compliance with State Board, surrounding Regional Boards, local Regional Board policies, and State and Federal laws and regulation, for workflow effectiveness, for enhanced communication with stakeholders and dischargers, and to assure that all scientific studies meet quality control standards
3. Reviews, edits and approves all environmental interpretations made by staff.
4. Develops annual program work plans for purposes of budgeting, allocating resources and appropriately assigning personnel and workload. Oversees work plan implementation.
5. Prioritizes and assigns work-tasks to individual staff.
6. Optimizes resources, maximizes productivity and improves efficiency to meet work plan requirements, prevent pollution and regulate dischargers.
7. Conducts regular, accurate and responsive performance reviews of personnel and conducts appropriate disciplinary action if needed.
8. Monitors staff project progress, performance and timeliness.
9. Conducts personnel recruitment, selection and assignment and develops duty statements.
10. Provides mentoring to staff on regulatory and technical issues regarding clean-up programs, landfills, point-source and non-point source programs.
11. Plans, allocates and monitors program budgets year-to-date progress.
12. Develops, reviews and revises templates for staff use for consistency and incorporation of current laws, regulations and policies.
13. Manages programs, develops periodic program status reports, reviews correspondence and technical reports, develops technical skills of staff related to all program activities.
14. Oversees CEQA document preparation and review by providing appropriate comments for the regulatory process.

Enforcement Supervision:

1. Reviews and prepares comment letters on regulatory documents, work plans, monitoring reports, technical reports, feasibility studies, land use covenants, and corrective action plans with special attention to geological issues.
2. Higher level supervisory review of design and construction of waste containment facilities and of technical and monitoring reports
3. Oversees and reviews staff evaluation of various reports such as Reports of Waste Discharge, inspection of facilities, water quality testing in preparation for proposed waste discharge requirements, NPDES permits, or waivers of waste discharge requirements that assure compliance with applicable laws, regulations and policies.
4. Supervises staff as they manage cases of Board-lead LUFT sites and SLIC sites, DOD sites, timber harvest programs, TMDL program activities, waste containment, and NPS program activities.
5. Applies State and Federal regulations to analysis of water quality issues and to appropriate written documentations.
6. Designs, implements and oversees complex special projects that respond to unique issues, locations or requirements for water quality assurance (e.g. Lake Davis Pike eradication, Napa River flood control project, Leviathan Mine project).
7. Oversees or assists in development of Basin Plan amendments for watersheds impacted by sources of pollutants that cannot be remedied adequately to support assigned beneficial use.
8. Oversees monitoring assessment activities and programs
9. Provides Regional Board oversight of Federal Superfund sites.
10. Reviews legal documents and provides input to Staff counsel and Attorney General's office.

Technical Review and Evaluation:

1. Reviews, edits and approves the technical review and evaluation of complex environmental projects.

Outreach:

1. Represents Board in public outreach activities involving responsible parties, the public and other stakeholders to provide information exchange into the regulatory programs pertaining to their members and to promote improved relations with all stakeholders, the public, and the Board.
2. Insures appropriate staff follow-through to investigate complaints according to Board policy and procedures.
3. Provides technical information to Regional Board staff so that they may inform the public correctly and develop permits that are scientifically and technically supportable.

4. Provides or ensures staff involvement in outreach to community organizations and schools for the purpose of communication and education about the Mission of the Board.
5. Interacts with other State, Federal and local agencies for consistency, rapport; and, development and implementation of policy.
6. Participates in external scientific and policy steering committees and watershed advisory groups.
7. Conducts outreach giving presentations at conferences and teaching classes at Universities.

Board and Policy Related:

1. Participates in the development and implementation of Board's IT capabilities.
2. Prepares oral/visual presentations for Board, industry meetings, technical conferences, and classroom presentations.
3. Coordinates and attends roundtable discussions.
4. Participates in State Board, Regional Boards and Regional staff meetings for the sharing of program information and to discuss technical issues.
5. Provides expert testimony and knowledge to enhance decisions and directives of Regional Board and provides depositions in instances of litigation.
6. Participates in state-wide roundtables and development of state-wide policies and plans
7. Contributes to developing prioritization of water quality issues within the Region and contributes to developing State regulations.
8. Provides technical input regarding proposed legislation as it might impact the work of the Board and the use of resources.

Grants and Contracts:

1. Manages and reviews grant proposals and/or contracts for special studies and implementation projects including but not limited to geotechnical, surface hydrology and ground water studies.

SENIOR ENGINEERING GEOLOGIST State Board

A Senior Engineering Geologist may perform the following tasks:

Supervision and Administration:

1. Manages staff – hiring, developing projects, tracking projects, meeting project deadlines, training,
2. Supervises staff – performance reviews, disciplinary actions, administrative matters (time sheets, training requests, etc), mentoring, motivating,
3. Reviews correspondence prepared by staff
4. Manages budget – recommends budget changes, monitors program budgets, staff budgets, etc
5. Prepares briefings or monthly status reports for divisional or executive management
6. Maintains and manages contracts
7. Enforcement of regulations

Outreach/Public Participation:

1. Serves as liaison with other agencies – federal, state and local
2. Communicates with public, stakeholders, attorneys for prosecution

Policy Development:

1. Prepares regulations and policies
2. Develops programs and program strategic plans
3. Prepares correspondence for legislature and respond to legislative requests
4. Reviews and comments upon proposed legislation

Technical Work:

1. Provides review of technical reports and plans (investigation reports, clean-up, remediation, hydrogeology, seismic and slope stability), of reports, of proposals,
2. Prepares technical reports
3. Coordinates Round Table agendas and content, provides workshops, training,
4. Conducts workforces, task forces,
5. Prepares and provides presentations to State Board, Regional Boards, local regulators, public stakeholders and conferences
6. Participates in or conducts field inspections
7. Drafts appeal and petition letters and technical reports
8. Reviews files for petitions
9. Draws upon technical background to provide review

ENVIRONMENTAL SCIENTIST – RANGE B Regional Board

An Environmental Scientist – Range B - may perform the following tasks:

Grant/Contract Management:

1. Reviews and approves monthly and quarterly grant reports and grant documents to approve payment of expenses, track progress of execution of grants, completion of grant elements and attainment of grant deliverables.
2. Documents grant/contract status and activities.
3. Communicates regularly with grant/contract contacts.
4. Drafts meeting agendas for and provides documentation to grant/contracts managers.
5. Prepares requests for contracts, invitations for bid and requests for proposals
6. Works with contract officials to execute contracts
7. Attends weekly/monthly grant manager meetings and maintains current database and files of grant activities.
8. Participates in State-wide review of Regional grant proposals.
9. Conducts site visits to assess grant activity progress.
10. Attends grant stakeholder meetings to assess grant activity progress.
11. Develops monitoring and reporting program plan guidelines.

Oversight and Enforcement:

1. Develops and writes water quality assurance project plans.
2. Manages water quality data bases – flow of electronic data from monitoring project to storage here at Water Board and with other agencies or responsible parties.
3. Reviews water quality data for quality assurance purposes.
4. Assesses water quality data for trends and issues.
5. Diversified, multi-disciplinary, training from organic perspective to describe impact on life forms, ecology.
6. Prepares environmental permitting packages, regulatory permits (401 Water Quality Certification, Waste Discharge, Water recycle, etc).
7. Implements enforcement of various environmental and environmental health regulations.
8. Writes and prepares CEQA documents for which Water Board is the lead agency.
9. Comments upon water quality issues of CEQA documents for other projects in the Region.
10. Reviews self-monitoring reports submitted by dischargers and provides written follow-up communication with discharger.
11. Responds to questions from dischargers, responsible parties and consultants.
12. Conducts site inspections to verify compliance with Basin Plan.

Technical Expertise:

1. Develops data bases and data base tools.
2. Coordinates with State Board and other agencies for data management purposes.
3. Prepares narrative reports based on data and program status for presentation to Board or public.
4. Reviews, comments upon and responds to technical reports.
5. Evaluates monitoring and reporting compliance to assure stakeholders are meeting objectives and complying with water code.
6. Develops monitoring programs for pollutant studies.
7. Implements monitoring programs for rivers, lakes and springs.
8. Analyzes and calculates pollutant loading.
9. Writes summaries and reports to explain sources or causes of pollutant presence in surface water or ground water.
10. Prepares data reports from requests by Board or public.
11. Attends or participates in technical advisory committee stakeholder meetings
12. Participates in technical work group meetings
13. Writes sections of TMDLs.
14. Develops GIS maps and coordinates data for presentations.
15. Delivers technical presentations.
16. Develops technical training manuals.
17. Performs quality assurance checks on data received from laboratories.

Outreach:

1. Responds to questions from the public about Board programs.
2. Provides technical training to public on data base functions.
3. Provides technical review of outside research projects.
4. Consults with and advises other agencies on related environmental issues.
5. Contacts County offices for determining property owners and conducts research on-line for same.
6. Contacts land owners and operators to explain study and to gain access to property.
7. Prepares and presents posters for science conferences.

Administration and Management:

1. Supervises and trains student assistants and technical staff regarding sampling and laboratory procedures.
2. Manages stakeholder groups – submittals, reports, timelines.
3. Conducts natural resource management planning and implementation activities.
4. Assists with natural habitat management, e.g. wetlands.
5. Analyze available data on the effects of pollutants, waste management, etc
6. Prepares reports and correspondence

7. Prepares Regional Board and State Board resolutions and agenda items, drafts orders for Board consideration.
8. Prepares workplans
9. Assists with budget and funding planning

ENVIRONMENTAL SCIENTIST – RANGE B State Board

An Environmental Scientist – Range B - may perform the following tasks:

Applications, Permits and Petitions:

1. Completes initial review and processing of water right applications, petitions and ownership changes to determine acceptability
2. Assesses water right applications and petitions for impacts the project may have on the environment
3. Develops plans to implement mitigation measures for water right projects
4. Processes protests on pending water right applications and petitions
5. Prepares notice of cancellation, water right permits and change orders
6. Develops enforceable permit terms

Technical Analysis:

1. Analyzes water quality data from State-wide sources to determine compliance with water quality standards
2. Completes reviews of biological reports, studies and surveys and provides comments for revision
3. Executes and manages memorandum of understanding for water rights projects to conduct detailed environmental analysis, consultation with agencies, develop mitigation measures, resolve environmental protests, and prepares adequate environmental documents
4. Assembles water quality data into an administrative record for the 303(d) lists
5. Reviews water availability analysis to determine if water is available and appropriate mitigation
6. Surveys water right project sites to determine appropriateness of mitigation measures

Outreach:

1. Coordinates meetings with agencies and stakeholders regarding water rights projects
2. Responds to inquiries from the public regarding water rights
3. Interacts with the public/stakeholders to provide information used to assess water quality
4. Coordinates and provides tasks for environmental consultants to prepare environmental documents (e.g. initial study, negative declaration)
5. Responds to inquiries from consultants regarding requests for information
6. Provides guidance as to Basin Plan objectives to public and stakeholders
7. Responds to comments from stakeholders/public via data bases
8. Creates fact sheets upon which 303(d) is based

Interagency Collaboration:

1. Prepares point of interest request letters to Department of Fish and Game
2. Consults with responsible agencies and environmental consultants to develop mitigation measures

Internal Board Support:

1. Prepares for Board meetings and hearings
2. Prepares comments on environmental documents for which State Water Board is the responsible agency
3. Plans time-lines to determine best method for project completion
4. Interacts with Unit team members to facilitate process of completing work
5. Reviews water rights to determine annual fees
6. Facilitates preparation of documents and solicitation of comments that go through State clearing house circulation
7. Responds to Board member inquiries via briefings and written responses
8. Maintains up-to-date water rights project files

ENVIRONMENTAL SCIENTIST – RANGE C

Regional Board

An Environmental Scientist – Range C - may perform the following tasks:

Basic:

Implements State and Federal laws and regulations and Water Board policies by:

- Writing and enforcing permits and Porter-Cologne
- Evaluating water quality impairments
- Determining and developing water quality standards
- Updating the Basin Plan
- Providing outreach to the public and regulated community
- Managing Federal and State water quality projects through grants and contracts
- Analyzing data

Enforcement/Planning/Project Management:

1. Designs, implements and/or evaluates water quality monitoring plans for a variety of programs, including both ground and surface waters – such as TMDL programs, grant programs, dairy programs, storm water, ag waiver, restoration projects, etc.
2. Develops NPDES storm water permits and other waste discharge requirements - including developing permitting and regulatory strategies, writing the permit requirements, writing the technical staff reports and associated documents, holding public workshops and responding to public comments.
3. Prepares 401 Water Quality certifications - including review of development project impacts, negotiation of mitigation and establishment of project conditions to minimize impacts.
4. Writes enforcement orders, e.g. notice of violations, cleanup and abatement orders, administrative civil liability.
5. Manages programs (e.g. TMDL, NPS, SWAMP, dairy, ag waiver, timber, storm water, water quality certification) by preparing work-plans, allocating resources, participating in roundtables and reporting to management.
6. Reviews technical reports, e.g. submittals from dischargers, grantees, internal monitoring programs, watershed groups, superfund sites, reports from other agencies.
7. Review proposals related to hydromodification, dewatering, potential ground water impacts.
8. Prepares, evaluates or reviews CEQA/environmental documents and makes determinations about CEQA application.
9. Evaluates and makes recommendations regarding exemptions to CEQA and Basin Plan prohibitions.
10. Reviews annual monitoring reports, technical reports and data from programs and facilities to determine if water quality issues have occurred, to evaluate the

extent of or whether violation is enforceable, recurring, or of immediate need for action (e.g. 303(d) lists).

11. Conducts site investigations and water quality monitoring, analyzes data to assess water quality and conducts interaction with discharger, permittee or stakeholder
12. Conducts the process of investigation and/or enforcement against dischargers and facilitates dispute resolution or mediation.
13. Develops project plans, authors documents defining water quality problems and their magnitude, establishes target remedies (e.g. TMDL), dialogues with stakeholders, permittees and other participants, and manages implementation of project plans.
14. Oversees processes surrounding permit requirements for a variety of programs such as wastewater treatment facilities, confined animal facilities, water quality certifications, municipal/industrial/construction storm water permits, landfills permits, permits for underground storage tanks, NPDES, 401 certification, etc.
15. Oversees discharger groups to ensure fulfillment of project plan requirements.
16. Oversees clean-up and remediation of DOD, DOE, UST, industrial (SLIC) and Brownfield sites.
17. Oversees various programs (e.g. NPDES, dairy, ag waiver, timber, storm water, grants programs) which includes site inspections, permit issuance, report review and stakeholder meetings
18. Protects beneficial uses of waters of the State as specified in CWC and Basin Plans and other State policies and plans (e.g. Thermal Plan, Ocean Plan, Non-point Source Policy).
19. Reviews and provides oral or written comments on water quality aspects of engineering plans and meets with external consulting engineers and other project designers to resolve water quality issues associated with project plans.
20. Participates in technical advisory groups with engineers, planners and other scientists to review water quality impacts or benefits of public and private projects.
21. Administers permits, enforces water laws (state and federal) and other regulatory activities by being main point of contact with public and dischargers.
22. Reviews development of information management systems (CIWQS and predecessors; Geo-Tracker), and uses databases to track complaints, invoices, inspections, enforcement actions and reports.

Outreach:

1. Collaboratively obtains, develops and manages information resources and data from other agencies for use in water quality monitoring to assure project applicability, appropriateness and discharger compliance.
2. Fosters and evaluates stakeholder participation levels as appropriate for a particular project (e.g. Coalition, compliance and submittal completeness).
3. Promotes and conducts public outreach with program information and/or conditions to achieve water quality goals and/or objectives.
4. Prepares and delivers presentations and facilitates meetings.

5. Develops program outreach material (e.g. simple fact sheets, posters, PowerPoint presentations, etc.).
6. Provides technical assistance to Board staff, outside agencies, stakeholders, dischargers, watershed groups, etc.
7. Reviews the content of and provides comments on reports from other regulatory agencies, environmental organizations, etc. related to the work of the Board.
8. Participates in programs regarding water quality with other agencies, stakeholders and members of the public as representative of Water Board.
9. Acts as Regional representative to state level task forces, e.g Clean Beaches Program, Critical Coastal Areas and Areas of Special Biological Significance, Bond Act Grant Programs.
10. Prepares and conducts CEQA scoping meetings with the general public.
11. Contributes to planning endeavors of local governments.

Water Board:

1. Prepares Board meeting agenda items, drafts resolutions, drafts Basin Plan amendments, enforcement items, prepares staff reports and staff presentations to Regional Board and to the public.
2. Reviews legislation and provides comments to State Board.
3. Coordinates with State Board, Office of Administrative Law, US EPA and other state, federal and local agencies.

Grants and Contracts:

1. Participates in development of grant program guidelines.
2. Reviews and evaluates grant proposals, participates in grant selection panels and coordinates communications with the grant applicants.
3. Assists in development of final grant agreements including scope of work and budget.
4. Provides technical assistance during project development, grant application and grant project implementation.
5. Manages grants and contracts including invoice review, progress reports, provide technical advice, review technical documents and supporting documentations, implementation of contract details, conducts site visits, keep auditable file, etc.
6. Assists in decisions regarding amendments, deviations, and termination of grant agreements.

Technical Expertise:

1. Provides scientific and engineering technical expertise on hydrology, hydrogeology, climatology, statistics, contaminant fate and transport, modeling, risk assessment, erosion control, soil physics, highway maintenance and operations, TMDL, NPS and SWAMP.
2. Creates items (maps, graphs, tables, etc) to support analysis of monitoring processes and procedures and reports on analysis.

3. Comments on adequacy of communications with discharger to ensure implementation of water quality plan.
4. Develops scientifically defensible interdisciplinary monitoring plans (including peer review and approved quality assurance plan) for watershed assessment, source analysis, and analysis of impairment.
5. Keeps up-to-date with state of science and emerging technologies, e.g. GIS, modeling, statistical software, forensics, DNA source tracking.
6. Experiences a wide variety of Water Board programs to coordinate with Water Board staff and experience.
7. Analyzes watershed assessment data for TMDL, 303(d), 305(b), and writes technical reports (TMDL, hydrologic unit area reports).
8. Develops Clean Water Act Section 303(d) list of Water Quality Limited segments based upon data assessment.
9. Participates in the CEQA and NEPA process by preparing and/or commenting upon CEQA documents, e.g. developing environmental reviews, economic analyses and responding to public comments and regulatory comments.
10. Provides scientific technical expertise in such areas as wetland processes, pathogen fate and transport, botany, zoology, toxicology, soil science, chemistry, etc.
11. Participates in technical work groups.
12. Manages environmental analytical laboratory, maintain state certification of the lab and perform multiple analyses on environmental samples.
13. Coordinate complex sampling events, samples surface water, ground water and conducts soil testing.
14. Monitors and assesses aquatic and riparian habitat data to develop appropriate water quality standards to protect these resources.

Administration:

1. Administers program implementation regarding work plans, resources, inventory supplies, equipment, provides coordination between programs and develops administrative record of projects.
2. Participates in recruitment activities for new employees at job fairs and exam/interview panels.
3. Interviews, hires, trains and oversees student interns.
4. Participates in interviews and hiring decisions of technical staff.
5. Maintains data bases.

ENVIRONMENTAL SCIENTIST – RANGE C State Board

An Environmental Scientist – Range C - may perform the following tasks:

Oversight:

1. Assesses large amounts of water quality data for the purposes of determining if water bodies are impaired and belong on the 303(d) lists
2. Prepares extensive staff reports supporting 303(d) listing recommendations
3. Reviews compliance reports to assure that diverters are in compliance with the terms of their permits and licenses
4. Review water rights applications to determine if they are acceptable
5. Review all environmental documentation (done by consultants) and provide comments on documents submitted to assure compliance with CEQA
6. Review environmental documents to see that potential projects are in compliance with CEQA and federal laws and provides guidance about additional documents and studies that might be necessary (direct studies if needed)
7. Reviews Water Quality Control Plan for the Bay delta – i.e. information submitted, technical reports and data studies – reviews information and submits this to the Board of possible action
8. Establishes program performance measures
9. Conducts limited field work to verify projects and work of contractors

Permits, Certifications and Licenses:

1. Writes general permits and develops laws and regulations in coordination with Clean Water Act
2. Determines fees for applications, permits and licenses and responds to fee related questions
3. Issues 401 Certifications for water quality and FERC re-licenses
4. Determines which permit terms will protect environment which may necessitate field work.
5. Provides workshops for dischargers to assist in achieving compliance with general permits

State Board Appeals Function:

1. Provides support to the Water Rights Hearing Staff for water rights applications that have gone beyond regular application process
2. Gathers information, provides testimony, cross examination, and provide technical support before the Water Board when protests have been filed against water rights application and are unable to resolve conflicts
3. Prepares decisions by contributing written support using scientific expertise



Provides Other Technical Support:

1. Serves as technical resource at Board hearings and other public meetings
2. Responds to inquiries from public regarding technical questions
3. Responds to public comments
4. Reviews technical reports submitted by consultants for initial studies
5. Provides consultation to Native American taking into account nation-to-nation relations, e.g. writes agreement programmatic documents, memorandums of agreement, historic property treatment plans
6. Provides legislative bill analysis, provides comments and makes recommendations

Contract, Grant and Loan Management:

1. Manages contracts for technical work performed by other agencies, consultants or universities
2. Develops guidelines for grant programs
3. Reviews applications for different grant proposals and make recommendations, participates in grant selection panels
4. Attends meetings for grant and funding applicants
5. AB2121 – Manages the contract and review contractor information regarding Russian River projects (5 counties)

Database:

1. Develops CIWQS data base and integrate current system and CIWQS to meet needs of all users
2. Provides data base maintenance

Administrative and Outreach:

1. Hires, trains and supervises student assistants
2. Attends meetings for matters of interest to the Board related to water right diversions
3. Develops outreach and education materials for the public
4. Provides liaison with other sister agencies to assure complete picture regarding a particular project

SENIOR ENVIRONMENTAL SCIENTIST

Regional Board

A Senior Environmental Scientist may perform the following tasks:

Basic:

1. Interprets regulation and implements regulations into policy taking into consideration Regional Board direction, legal challenges, statute requirements and assures that staff work incorporates all of this
2. Serves as lead technical staff advisor to subordinate staff, upper management, Regional Board, the regulated community, stakeholders and to the public.
3. Provides a unique knowledge base that includes habitats, California ecology, biological processes.

Staff Supervision:

1. Develops annual program work plans and program priorities.
2. Directs and supervises staff in review of reports, implementation of programs, and following legally required or program related stakeholder communications.
3. Supervises engineers, geologists and scientists to produce an efficient, cohesive, motivated and educated workforce.
4. Meets with supervised program staff to coordinate programs and ensure consideration/representation of water quality issues.
5. Reviews with the staff unit out-puts to ensure products are complete and accurate, logically organized, well-written, professional and consistent with Board programs.
6. Coordinates with senior staff colleagues for consistency and representation on water quality issues.
7. Prepares performance evaluations for unit staff to improve performance, recognize staff strengths and areas for growth, clarify expectations and assist in staff career development.
8. Provides progressive discipline when necessary to change staff behavior or performance.
9. Develops/reviews/trouble shoots program operations, procedures and policies to achieve efficiency and productivity that protects water quality.
10. Tracks operating budget to ensure expenditures are within limit, tracks staff coverage, leave requests and time sheets.
11. Oversees case management and prioritizes/delegates workload to unit staff to ensure tasks are completed within deadlines by qualified staff and to give staff opportunities for growth.
12. Conducts and oversees data and information management tasks, e.g. CIWQS.
13. Leads selection process for new hires.
14. Trains staff in completion of documentation (e.g. permits, enforcement actions, Basin Plan amendments) and coaches staff regarding technical and policy matters, writing and formal presentations.

15. Facilitates communication flow between staff and upper management.
16. Resolves technical and policy conflicts between staff, dischargers and NGOs in matters that go before the Board or the Executive Officer.

Fiscal Supervision:

1. Ensures proper use and allocation of funding coming from internal and external sources, e.g. grants, service contracts, SEPs, cleanup and abatement accounts, Federal programs, subcontractors, etc.
2. Coordinates and directly participates in the development of guidelines for water quality grant/contracts.

External Stakeholder Supervision:

1. Participates in creation of tracking systems and reviews documents and correspondence related to enforcement, permitting and stakeholder monitoring.
2. Evaluates requests and integrates comments and input from stakeholders e.g. dischargers, environmental activists, other interested persons to change permit requirements, Basin Plan amendments, TMDL Implementation Plans and monitoring programs.
3. Creates and reviews permit and enforcement actions and their supporting data for staff to provide feedback, ensure technical accuracy, legal defensibility and to ensure consistency amongst programs.
4. Coordinates and collaborates with staff in formulating recommendations for enforcement actions to be provided to upper management.
5. Oversees tracking of regulatory accomplishments.

Facilitates Inter-Agency Cooperation and Public Participation:

1. Facilitates and actively participates as a representative of Board management in stakeholder and public meetings, e.g. to educate the public about the work of the Board, to mediate conflicts, and to receive community input.
2. Coordinates the Regional Board's participation in projects and issues having state-wide water quality significance.
3. Develops relationships with stakeholders in order to facilitate more successful interactions, more useful feedback, more trust-based interaction.
4. Prepares and delivers presentations to stakeholders to disseminate information.
5. Prepares and delivers training program staff on technical, administrative and/or communication issues.
6. Reviews other regulatory agency documents to ensure that water quality is considered and plans are consistent with the Basin Plan and Regional Board programs.
7. Responds to and facilitates public information requests and complaints.
8. Responds to inquiries from media and elected officials.
9. Directs staff in design of public participation processes.

Board Interaction and Leadership:

1. Prepares Board meeting materials to provide educational information and to evaluate resource and policy implications regarding agenda items for Board action.
2. Participates in roundtables with Regional Board and State Board.
3. Makes presentations to and responds to questions from Water Board during formal meetings and hearings; and, assists staff in the same activity.
4. Identifies, evaluates and addresses legal issues, judges when attorney advice is necessary and obtains that input.
5. Advises staff and peers from other divisions regarding programs using areas of expertise (e.g. analytical methods, land and water use relationship, biology, toxicology, environmental science in general, ground water, modeling, interaction of all eco-system factors in the context of a watershed).
6. Participates in workgroup forums statewide on behalf of Division Chief and Executive Officer to represent office perspectives/interests and to be aware of the work of others.
7. Serves as Division Chief in the absence of same.
8. Serves as an early warning system of pending, potentially explosive problems, to listen to info from the field and the staff about things and translate that input to potential issues of policy. Listens to the details and sees the big picture.
9. Listens to the disparate sources of information, synthesize the information and looks at the issue from a policy perspective, efficiency perspective and effectively briefing management.
10. Prepares technical memos, positions and recommendations on emerging scientific issues, in addition reviews external scientific reports and provides expert opinions on Regional Board programs/impacts.

SENIOR ENVIRONMENTAL SCIENTIST State Board

A Senior Environmental Scientist may perform the following tasks:

Supervision and Administration:

1. Supervises scientists, engineers, geologists, sanitary engineering associates, delegates work, holds unit meetings
2. Identifies work, reviews work to ensure consistency
3. Prioritize workload and match assignments with staff competencies
4. Coaches, counsels, mentors and trains staff
5. Provides staff discipline and progressive disciplinary actions
6. Provides interface and buffer between upper management and line staff
7. Responds to control letters to meet needs of management and of staff
8. Sets priorities for staff, changes as needed
9. Attempts to support staff morale
10. Discovers innovative way to get more work done with fewer resources
11. Provides managing-up trainings for managers
12. Interviewing candidates for staff – and hiring, probationary reviews and individual development plans
13. Prepares budget change proposals, bill analysis,
14. Coordinates with other staff through state-wide Round Tables
15. Provides, for the more complex and technical projects, and performs the more complex and technical tasks – preparation of Board Orders, permits, and CEQA documents
16. Put final review and touches on big projects
17. Prepares reports to a number of state and federal contacts
18. Provides oversight on contract management and development with outside consultants
19. Reviews technical accuracy and proper use of models, methods and statistics
20. Supervises and monitors enforcement of the water Quality Control Plan for the SF Bay Delta and its accompanying water rights decisions

Board Support and Input:

1. Presents amendments, projects, reports, etc to the Board and to the Public and trains staff to do the same
2. Provides technical expertise to the Board to answer public complaints or questions
3. Interfaces with office of Chief Counsel to provide technical input related to legal issues
4. Reviews draft amendments to assure compliance with laws and regulations and are consistent with prior Board actions
5. Manages when actual amendment packages will go to the Board
6. Educates the Board regarding technical issues



Outreach/Public Participation:

1. Provides workshops and hearings to gather public and expert input

STAFF ENVIRONMENTAL SCIENTIST Regional Board

A Staff Environmental Scientist may perform the following tasks:

Basic:

1. Provides lead role, coordinates or facilitates stakeholder groups, technical groups, intra-agency special projects, state-wide programs for special issues to protect water quality.
2. Identifies the need for specialized groups to meet on various topics and promote activities to advance solutions for those special topics.

Management/Administration:

1. Manages Surface Water Ambient Monitoring Program (SWAMP) and other Statewide water quality and monitoring programs to produce ambient water quality data and assessment reports.
2. Manages contracts, manages field monitoring/applied research for understanding abundance, distribution, and cycling of pollutants in water, e.g. mercury, PCBs, pathogens.
3. Provides institutional knowledge/memory for the science-based programs, for linkages between programs, for prioritization of information valuable for overall Regional efforts and for integration of Regional activities.
4. Coordinates watershed management within the Board, with other Regions and with outside stakeholders.
5. Represents Water Board in public arena based on broad-based interdisciplinary expertise and training, e.g. law, economics, policy analysis, teaching/speaking experience, etc.
6. Leads Basin Plan amendment process, water quality assessment (Clean Water Act Section 303(d) and 305(b)), develop technical TMDLs and implementation plans, developing and refining water quality standards.
7. Represents Regional Water Board at program round tables to design and implement complex state-wide programs including workplans, budgets, etc.

Program Development:

1. Develops programs from conception or adoption – establishing structure, funding, technical elements and stakeholder involvement.

Technical Support:

1. Analyzes data and writes technical reports on a particular area of expertise.
2. Analyzes issues and writes technically defensible correspondence or reports that thoroughly explore issues of importance to water quality.



3. Develops and presents data to other agencies to achieve the commitment of resources from those agencies to achieve common solutions.
4. Develop technical aspects of and scientifically defensible foundation for important programs affecting Regional Boards and the State Board.
5. Serves as technical expert in a specialized discipline for the benefit of Regional and State-wide programs and personnel.
6. Provides technical expertise, consistency and coordination of multi-media monitoring programs.
7. Serves as expert in establishing consistency of interpretation of policy, development of programs and application of water quality standards for staff and Regional Board.
8. Brings scientific expertise to case-by-case consulting, peer review, review of staff work and review of discharger submittals to assure consistency and conformance to regulations, policies, plans, and directives.
9. Provides breadth of scientific experience in assisting management and staff with Board presentations and staff reports.
10. Assists Program Managers to develop and resolve issues or to elevate recommendations to management.
11. Develops technical, scientific-based tools, e.g. databases, field assessment methods.
12. Serves as Quality Assurance Officer for monitoring activities and grant projects.
13. Conducts field investigations which may include sampling, investigation of spills and complaints (site characteristics, nature of spill, cause of complaint, etc).

Outreach:

1. Serves as Regional liaison to other government agencies, NGOs, and the public to produce technically defensible work that meets Regional and State Board standards.
2. Provides outreach to the public and educates community about Regional priorities and/or specific programs.
3. Provides training for State and Regional Board, Board staff and staff of other State agencies.
4. Assists with special projects on Regional and State levels as appropriate with multiple local, State, Federal, tribal Agencies.
5. Interacts with broad spectrum of stakeholders through written and verbal communication about the work of the Board within his/her area of expertise.
6. Provides technical, regulatory and policy assistance to watershed groups, local community groups, local governments.
7. Provides technical, regulatory and policy assistance to wetland restoration and mitigation project permittees and works with the State Board and other Regional Boards to implement consistent policies, assess wetland projects, and enforce as needed.
8. Facilitates organization of watershed councils and regional forums

9. Achieves effective communication with a large variety of stakeholders through collaborative processes.

Water Board:

1. Reviews proposed policies, plans, regulations and directives impacting the Region's mission and provides feedback.
2. Reviews proposed state and federal legislation and provides analysis for feedback regarding potential impact on Water Board programs.
3. Works independently within an area of expertise or specialty and serves as resource to Regional Board management in addressing issues related to that expertise or specialty.

Grants:

1. Works with State Board to define grant policies and processes.
2. Provides to grant applicants technical assistance to develop grant concepts and applications.
3. Participates in grant review process based on technical expertise.
4. Manages grants associated with technical activities such as monitoring.