

The State of the Central Valley Region



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Executive Officer

Outline

- Background
- Status of Major Programs
- Organization-wide Issues
- Summary



Central Valley Region Facts

- Nearly 40 % of State's Land area
- 18% of State's population
- 2/3 of State's drinking water
- Nearly 30 million acre-feet of reservoir storage



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- Region covers about 60,000 sq. miles or almost 40% of the State
- 18% of State's population within Central Valley but we expect that number to change over the next decade/century as growth is focused in the Central Valley
- 36 of 58 counties
- Largest west coast estuary
- 2nd largest contiguous groundwater basin in US
- The majority of water quality issues faced throughout the state, such as dairies, irrigated lands, waste land application, timber harvest are in the Central Valley.
- Concerned with growth in San Joaquin Valley. San Joaquin Valley is targeted for the highest expected growth rate in CA
- Wonderful for the economic development very concerned with waste associated with growth.
- Big concern given the resources we have and the problems we will be facing.

Staff and Budget



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Central Valley Region Staff Facts

● Staff

- ◆ \$23.6 million personal services
- ◆ 259 authorized positions
 - 60 managers
 - 177 technical staff
 - 22 support staff
- ◆ Students / Post-Graduate Researchers



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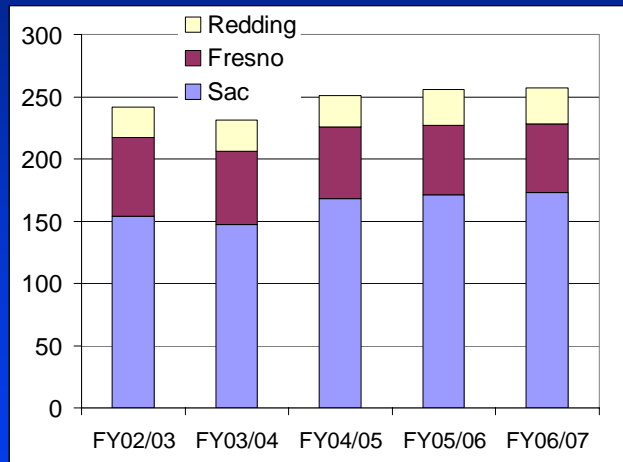
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- Most important and valuable resource are our staff. 259 full and part time positions (comes out to 256.8 PY). 176 positions – Sac/ 55 Fresno / 28 Redding
- Managers – 23% of our staffing allocated to management. This includes senior staff and above. Managers guide staff; manage resources; coordinate with EPA and State Board
- Technical staff – Accounts for 68% of our staff. Our technical staff are on the front lines in our water quality protection activities – issuing permits, conducting inspections, developing enforcement cases, working with a variety of stakeholders.
- Support staff – Account for 8% of the staffing and provide critical support to keep our office functioning – keep our critical computer systems running smoothly, processing personal forms, expense claims, making sure we have the supplies we need.
- In addition to full time staff, many of our programs rely on student assistance and post graduate researchers.

Central Valley Region Staff Facts

- Authorized Positions by Fiscal Year



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Current distribution: Sacramento 67% Fresno 22% and Redding 11%

- Five year average: Sacramento 66%, Fresno 23% and Redding 11%

- Over a five year period, positions in Sac have increased by 19, in Fresno they have decreased by 8, and in Redding increased by 4. Overall increase of about 11 however the % distribution has remained essentially the same.

- As we move into the future we will be looking into the distribution of our resources between the offices. Considering the high growth expected for the San Joaquin Valley we may have to consider the allocation of resources into the southern areas of our Regional Board.

Central Valley Region Staff Facts

- Potential Retirements in Next 2 Years

	Redding	Fresno	Sac
Mgmt	1	5	8
Tech Staff	1	2	11
Support	1	0	2

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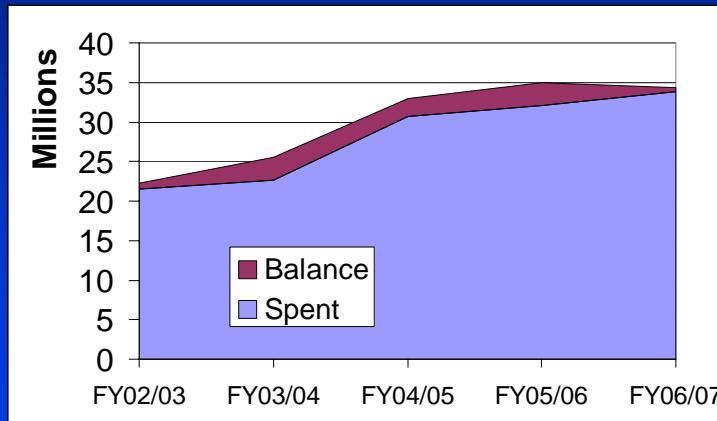
- We recently asked our managers to find out who might be retiring in the next few years. About 31 people indicated they are considering retirement. Of course, this group includes many of our most valuable and important employees, including 3 AEOs, 4 supervisors, and a number of seniors and staff who have a rich institutional knowledge of the Board, in addition to many skills.

- 12% of our workforce we may lose to retirement. 48% or 15 of those positions are in our management ranks, many with multiple years of experience and knowledge of the Central Valley Board.

- One of our key challenges will be ensuring a smooth transition as we lose these key people.

Central Valley Region Budget Facts

- Expenditures/Balance by Fiscal Year



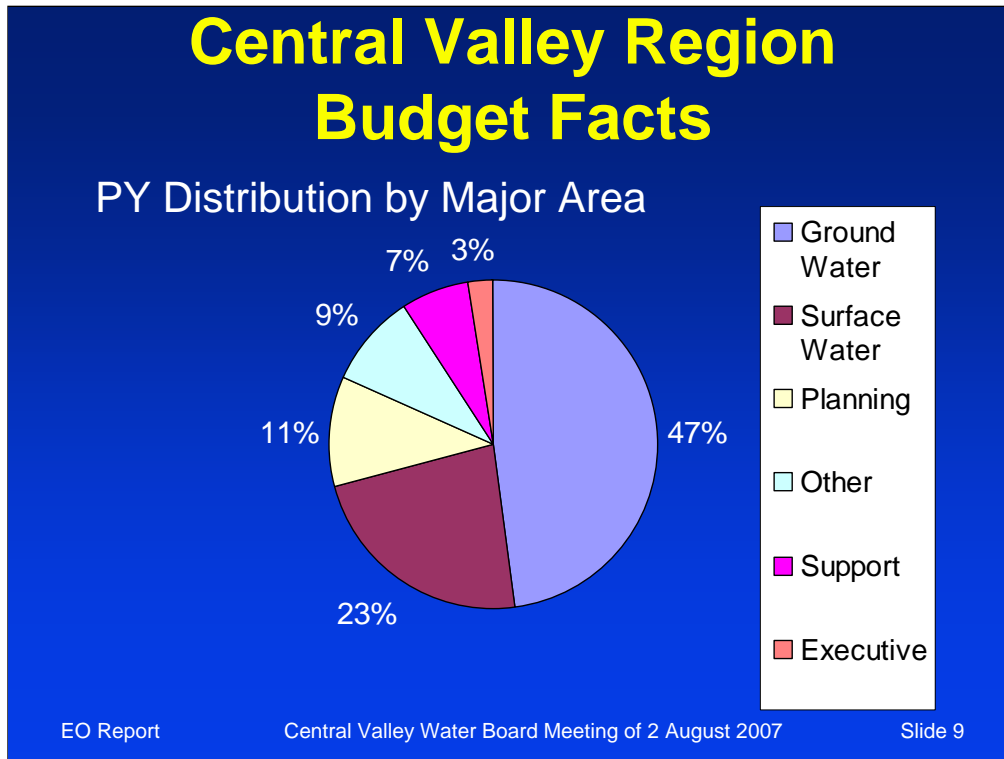
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- The Region's operating budget has generally been increasing, however, the last two years have been steady. Each year since FY02/03, we have had a positive balance at the end of the year, ranging from \$400,000 to \$3,000,000.

- If approved our budget will be increased to \$37 million this year.



• I would like to point out that throughout my discussions today regarding allocation or number of PYs currently deployed were established for this report based on how we distributed or spent our resources over the past year.

• Ground Water – SLIC/DOD, UST, Title 27, WDR, Dairies (47%)

• Surface Water – NPDES, Storm Water, Timber Harvest, ILP (23%)

• While only 23% a lot of our priorities tend to focus on surface water programs.

• Planning – TMDLs /Basin Planning (exclusively on surface water) (11%)

• Other – Grants/Enforcement/SWAMP (grants & SWAMP surface water focused) (9%)

• Support – IT/Admin (7%)

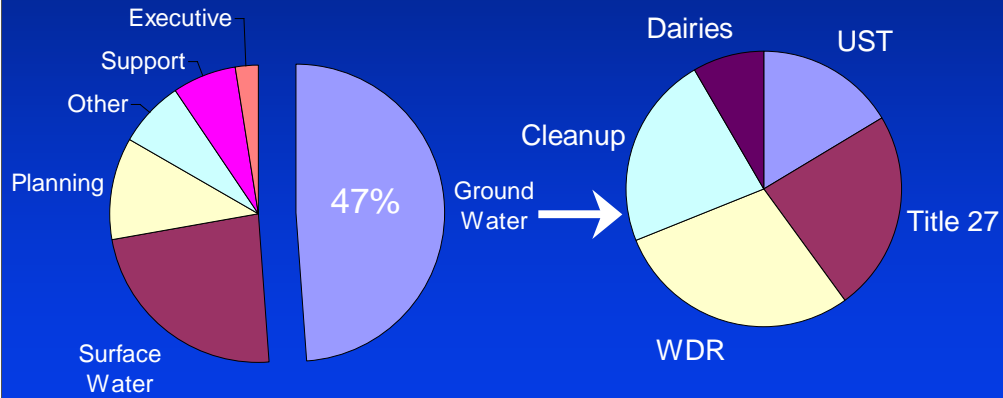
• Executive – EO/AEOs (3%)

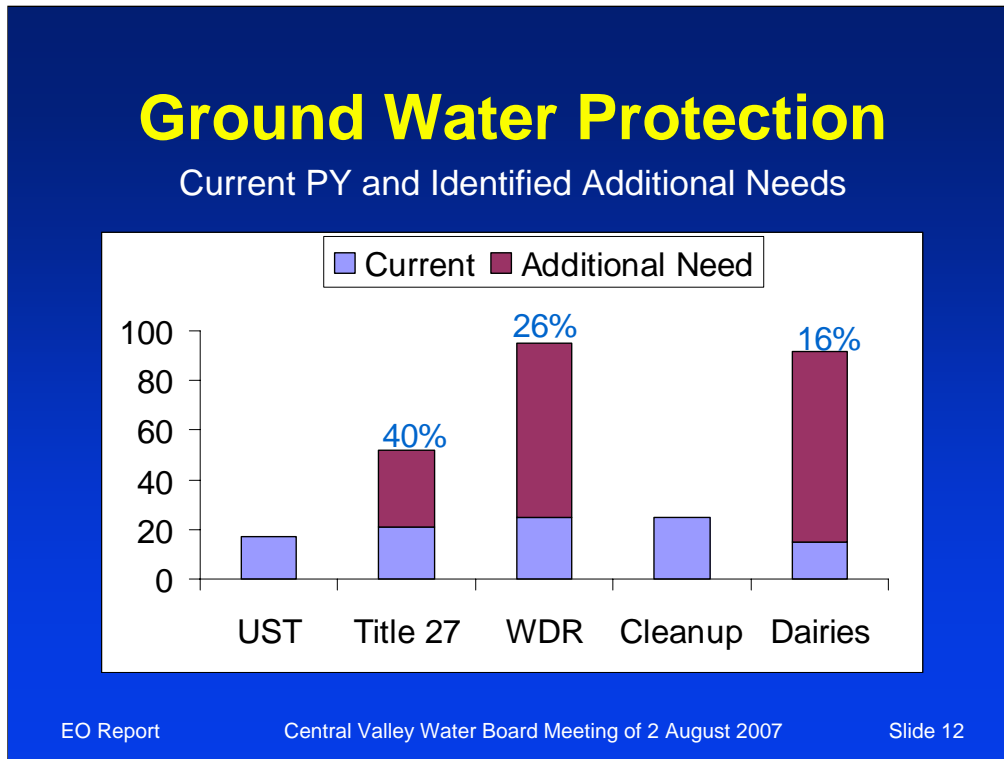
Ground Water Protection



Ground Water Protection

PY Distribution between GW Protection Programs





- Year 2000 Needs Assessment by SWRCB focused on our core regulatory programs, reported to Legislature. We do not have a needs assessment in our other program areas. Where there was information I provided it in this discussion. This information was provided in a report to the Legislature and is a public document.

- In this budget, Legislature directed SWRCB to conduct new assessment of needs and submit by 2009 which will hopefully address all programs.

Title 27

- Approximately 265 landfills, surface impoundments, & waste piles
- Staffing
 - ◆ 21 current
 - ◆ 40% of total PY needed
 - Based on 01/02 Needs Assessment



- Focus of Title 27 is on protection of ground water from sources that are required to fully contain their waste.
- Title 27 is a section of the California Water Code and contains Prescriptive standards written specifically for groundwater protection.
- Establishes special handling of materials and facility requirements to protect groundwater
- There are about 265 landfills, surface impoundments, and waste piles under WDRs regulated by our Title 27 group.
- We estimate approximately 100 sites that are currently unregulated.

Title 27

- Accomplishments
 - ◆ Majority of unlined landfills now closed and capped, many with groundwater cleanup in progress
 - ◆ WDRs require appropriate waste containment designs to protect groundwater and surface water

Title 27

- Challenges
 - ◆ Complex engineering & waste containment designs
 - ◆ Threat to groundwater from industrial discharges
 - ◆ Historic mining sites uncovered
- Steps to Address Challenges
 - ◆ Training and professional development of staff
 - ◆ Reduce wastewater strength
 - ◆ Coordinate with DTSC on mine site cleanups

- The engineering issues and waste containment designs are becoming increasingly complex.
- Work load is increasing as ground water threats from industrial discharges are recognized.
- The work load associated with historic mining sites is increasing as urban development uncovers these sites and the associated remnant waste
- Emphasizing training and professional development of staff to keep up with the new technologies.
- Working w/industry to reduce wastewater strength and limit discharges subject to Title 27.
- Coordinating w/DTSC to coordinate mine cleanup efforts to leverage resources throughout the state.

Cleanup Program

- **Private Sites:**

- ◆ 350 SLIC Facilities in cost recovery
- ◆ 40 Other Cleanup sites
- ◆ 20 Mines sites

- **Staffing**

- ◆ 17 current
- ◆ 5.3 new proposed budget



Raley Field – a Brownfield success

I just chatted about mine sites in my Title 27 discussion. We have our groups working together cooperatively and collaboratively to ensure we do not have duplicate work going on within the Region.

- The cleanup program in region 5 includes both private facilities and federal super fund sites.

- We are working on these projects, and closing sites as cleanups are completed; most of these projects are long term cleanup actions whereas some of the brownfield cleanups can be less time consuming when contamination is less severe.

- Mine sites include - Walker, RMK, Jamestown, Empire Mines, Turkey/Abott

- The photo shows RALEY FIELD – A Brownfield Success, where once a chemical plant and blighted warehouses were located on 15 acres adjacent to the Sacramento River in West Sacramento.

- Soil and groundwater were polluted with volatile organic compounds.

- With Regional Board oversight, cleanup systems for soil and groundwater were incorporated into the stadium design and are still operating as of today.

Cleanup Program

Federal Superfund Sites

- Aerojet (350 sites)
- 3 Mines (Iron Mountain, Sulphur Bank, Lava Cap)
- 20 DOD Facilities (600 sites, 265 USTs)
- Lawrence Livermore Lab/Lehr sites (15 sites)
- Staffing: 8 current

Alex MacDonald collecting a sample from a water supply well near Aerojet as reported in the Sacramento Bee (6/11/07)



Federal superfund sites require extensive coordination with USEPA and DTSC.

Cleanup Program

- Accomplishments
 - ◆ Achieving 10 site closures/re-use per year
 - ◆ Approximately 100 sites in active remediation
 - ◆ Re-use & cleanup of several major bases
 - ◆ Responding to emergencies and spills
 - ◆ Uniform Site Assessment Tools document
 - ◆ Implementation of innovative in-situ technologies
 - ◆ Institutional controls

Site closures or rather No Further Action required

- Mather AFB, Sacramento Army Base, Castle AFB; major groundwater cleanup systems in place at McClellan and Aerojet
- Responded to a number of spills and emergencies including the UP Trestle fire, Baxter train derailment and a major Shell Oil pipeline rupture.
- In-situ technologies are more cost effective for certain groundwater cleanup sites; WDRs have generally been adopted
- Institutional Controls in the form of deed restrictions or covenants not to sue allow re-development to proceed and protect human health. These things are done to expedite brownfield and cleanup activities in the redevelopment of property.

Underground Storage Tanks

- 1,059 open cases (RB lead)
- 1,309 open cases (local agency lead)
- Staffing: 16.9 current



- Two main programmatic elements – leak prevention, detection and spill clean-up
- Personally concerned about length of time that these cleanups take.
- Over 1,000 cases Regional Board lead. Each staff handles 60-80 cases.
- Over 1,300 cases w/local agency lead, whose work we must review.
- Cases represent 26% of State-wide Regional Board load and staff resources represent 22% of State-wide Regional Board resources.

Underground Storage Tanks

- Accomplishments

- ◆ Issued 58% of State's Clean-up and Abatement Orders for USTs
- ◆ Closed 24% of the cases State-wide
- ◆ Reviewed over 3,000 work plans and reports

Last year we focused on cases that are impacting drinking water wells while increasing enforcement and completing case closures.

WDR Program

- 1,500 facilities
- 1,100 WDRs
- Staffing
 - ◆ 25 Current
 - ◆ 26% of total PY needed
 - Based 01/02 Needs Assessment



• 1,500 facilities discharging to land, including treatment plants, food processors, and oil production water.

• Facilities are covered by 1,100 individual or general WDRs.

WDR Program

- Accomplishments
 - ◆ Updating old WDRs
 - ◆ Strong ground water protection requirements
 - Increased groundwater monitoring
 - ◆ Effective use of enforcement options
 - ◆ Work w/ Food Processors & Wine Institute

- Each of our WDRs includes emphasizes ground water protection
- Fresno office reorganized to improve efficiency of WDR production
- We have worked collaboratively with food processors and the wine industry to address discharges from their facilities.

WDR Program

- Challenges
 - ◆ Near quadrupling of pending Reports of Waste Discharge and doubling of backlogged WDRs since 99/00
 - ◆ Waivers issued 2002 expiring
- Steps to address challenges
 - ◆ ID opportunities to improve efficiency
 - ◆ Develop materials for food processors to improve quality of applications

- Each of our WDRs includes emphasizes ground water protection
- We have worked collaboratively with food processors and the wine industry to address discharges from their facilities.
- In addition, waivers issued in 2002 will be expiring and need to be renewed.
- We are looking for opportunities to improve efficiency.
- We are developing materials for food processors to improve the quality of their applications.
- We've been in business a long time and we are still doing some of our business practices the same way we did them when we started many years ago. The leadership team will begin working together to determine ways to improve our processes to leverage our resources and be more effective in how we develop/implement our programs.

Dairies

- 1,550 existing dairies
 - > 400 feedlots, poultry and other confined animal operations
 - Staffing
 - ◆ 8 current
 - ◆ 7 new in proposed budget
 - ◆ 16% of total PY needed
- Based 01/02 Needs Assessment



- The largest concentration of dairies is in the Central Valley.
- There are 1550 dairies and over 400 other types of confined animal facilities in the Central Valley.
- Through 2002, these most of these facilities operated under conditional waivers of WDRs.
- Worked for years to eliminate surface water discharge through enforcement and selective issuance of WDRs
- There are about 8 staff dedicated to the program. This staff is split between the Sacramento and Fresno offices.
- Current budget includes a proposed increase of 7.4 Pys that will be distributed between staff but anticipate a majority heading to our Fresno office
- Based on the 01/02 needs assessment reported to the legislature with the added PYs we will have approx. 16% of the projected needs. Now the basis of the 01/02 needs assessment may have been based on individual orders as opposed to the general order that was recently adopted. This number will be reevaluated during the new assessment to be conducted by the State board.

Dairies

- Accomplishments
 - ◆ Issued General WDR (May 07)
 - ◆ 11 pending enforcement actions
- Challenges
 - ◆ Preparation of individual WDRs
 - ◆ WDRs require review of numerous reports
- Steps to address challenges
 - ◆ Work with California Dairy Quality Assurance Program

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•Recently issued General WDR – big step forward to directly regulate dairies. Focuses on ground water protection.

•Dairies will be conducting monitoring and preparing waste management plans and nutrient management plans.

•Staff continues to work with the Northern California Dairy Task Force to support prosecution of dairies that discharge waste to surface waters. At this time, 11 cases are pending.

•A major challenge will be keeping up with the dairy industry as new facilities are built and existing facilities are expanded. These operations will not qualify for coverage under the general WDR and staff will have to work with each facility to prepare individual WDRs for Board consideration.

•At the same time, we will be receiving and reviewing the hundreds of reports to be submitted by existing dairies in response to the new WDRs.

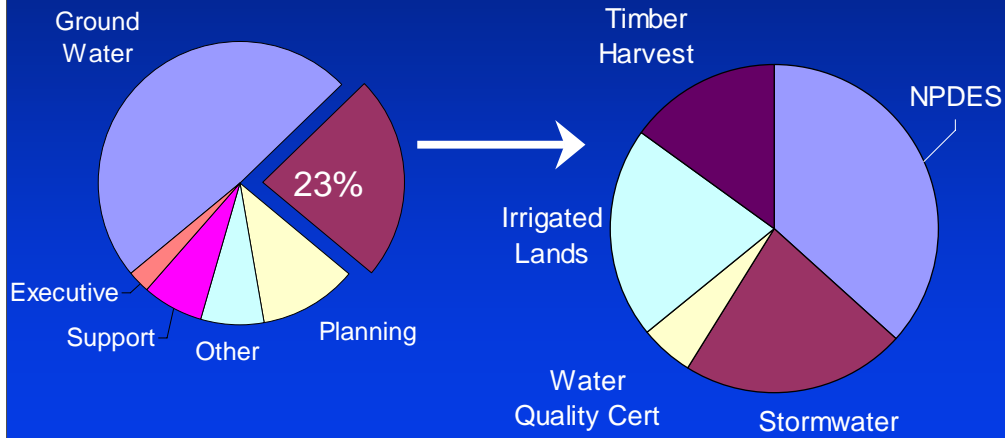
•Staff is working with the California Dairy Quality Assurance Program to develop classes and informational material to help dairies understand and comply with the new WDRs.

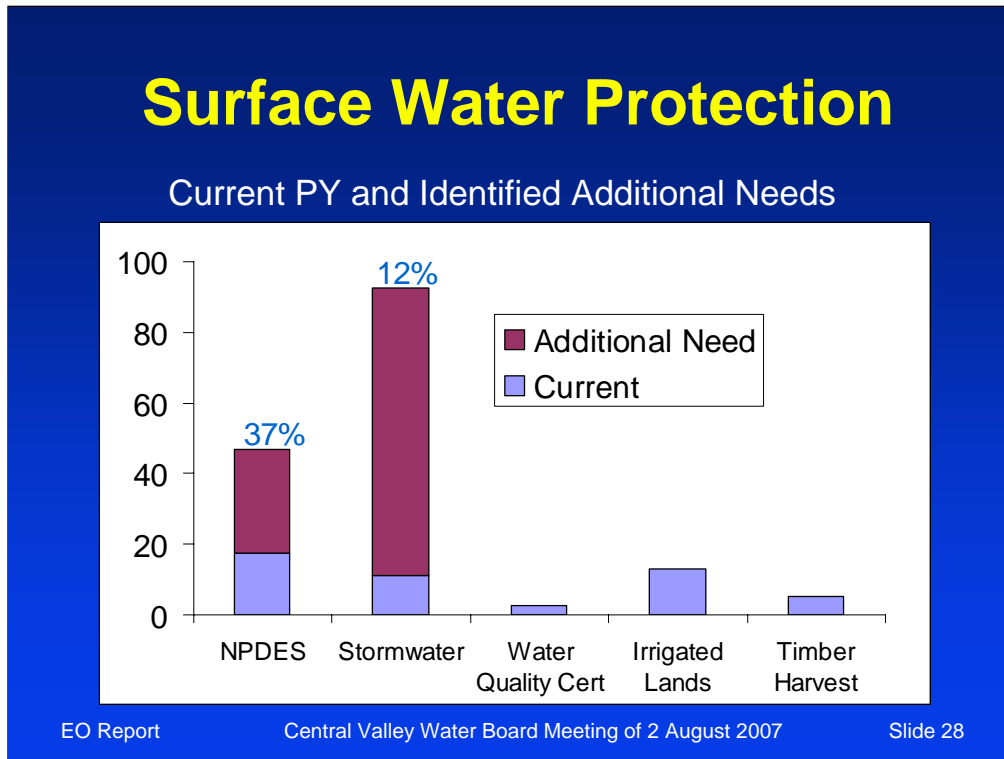
Surface Water Protection



Surface Water Protection

PY Distribution between SW Protection Programs





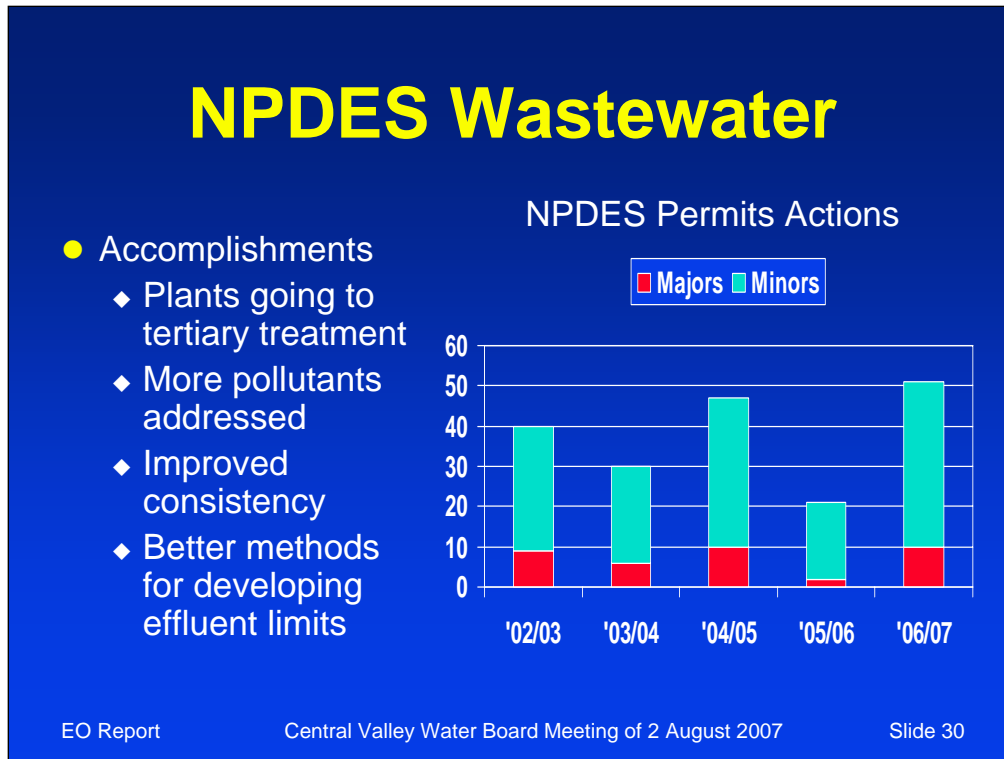
In water quality certifications the needs report identified an additional 130 resources statewide and did not allocate the needs by regional board. I'm assuming some portion of the 130 would apply to Region 5.

NPDES Wastewater

- Over 200 permits
 - ◆ 30% of individual permits State-wide
 - ◆ 54 majors / 162 minors

- Staffing
 - ◆ 17.5 PY currently
 - ◆ 37% of total PY needed
 - Based 01/02 Needs Assessment





•Although permits are more complex, many plants are going to tertiary treatment, where necessary, which is reducing pollutant discharges.

•After adoption of the State Implementation Plan, new and renewed permits are addressing many more pollutants than prior to SIP adoption.

•There is improved consistency in the permits being written

•We also now have better methods for developing effluent limits for metals, ammonia & other constituents.

•The graph illustrates the number of permits issued for each fiscal year (July 1 through June 30).

•The drop in 05/06 can be associated with many issues including – highly contentious items from all parties, consistency issues within the offices and between staff, and a lot of issues that needed direction and guidance from management. We are back on track to issuing permits.

NPDES Wastewater

- Challenges
 - ◆ Permits being contested
 - ◆ Back log of permit renewals
 - ◆ Developing permits that are scientifically defensible & appropriate

- Steps to address challenges
 - ◆ Staff training/guidance to improve consistency
 - ◆ Re-organized section / improved relationship with contractor
 - ◆ Fill vacancies with highly qualified professional staff

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• Many permits are being contested for similar reasons. Contested permits involve significant staff time for board prep and that can slow the process. There are a significant number of petitions held in abeyance with the State board. Some actions are being litigated. Active petitions and lawsuits can be a significant drain on staff resources. We are working to find a more efficient method to approach the issues.

• All major and minor permits have a five year term and USEPA who has oversight of our program requires our permits to be renewed in a timely manner. Given our resource issues and other concerns we have a back log of permits requiring renewal. At the end of this year Redding will have eliminated their backlog and Sacramento and Fresno are moving towards reducing their backlog.

• When dealing with complex NPDES regulations and pollutant issues, it can be a challenge to develop scientifically defensible effluent limits that are appropriate to the situation.

• Providing staff with additional training and management guidance to improve consistency.

• The Sacramento section was reorganized to improve efficiency and we have improved our relationship with our contractor. Other Regions (2,4,9,7,3,1) have all been successful in using EPA's contractor to eliminate or significantly reduce their backlog and we are now along the same path.

• We are also aggressively filling our vacancies with highly qualified professional staff.

NPDES Storm Water

- 7 Individual Phase I MS4 permits
- 86 Phase II MS4 Permits
- ~ 2,000 industrial
- > 5,500 construction
- Staffing
 - ◆ 11 PY + students
 - ◆ 12% of total PY needed
 - Based 01/02 Needs Assessment



- The Storm Water program involves four types of permits.
- First for larger urban areas, we have Phase I municipal permits. We have written 7 Phase I permits which are updated every 5 years.
- For smaller urban areas the State Water Board has adopted a Phase II permit. We have 86 Phase II communities in which we work with the community to implement storm water programs. State Board general permit for Phase II so we are not tasked with writing individual permits but there is a significant workload associated with review of Storm Water Management Plans.
- We regulate almost 2,000 industrial storm water sites and over 5,500 construction sites.
- Resources include 11 PYs and several students.

NPDES Storm Water

- Accomplishments
 - ◆ Significant enforcement cases on construction sites impairing downstream waters
 - ◆ 500 industrial storm water permittees contacted to address deficiencies in annual reports

•We have an excellent storm water construction program. In 2006, the Regional Board Executive Officer issued seven Administrative Civil Liability Complaints totaling \$2.9 million. These, plus two other non-ACL enforcement cases sent a strong message to the regulated community that violations of construction storm water permits would be costly. Our enforcement cases received widespread news coverage and compliance has improved greatly in 2007.

•In the past we simply notified industrial permittees that they failed to submit annual reports but this year we conducted a review of the annual reports. In 2007, we notified about 500 industrial storm water dischargers that the quality of their storm water discharge had exceeded EPA benchmarks and that they would be in violation of their storm water permit if they did not actively work to find and eliminate the source of the violation. The response from industrial storm water permittees was excellent with most permittees taking a look at their processes for possibly the first time to find out what was causing their problems.

•This year we are allocating more staff time to industrial inspections.

NPDES Storm Water

- Challenges
 - ◆ Processing of new filings and notices of termination
 - ◆ Updating Phase I permits
 - ◆ Implementing Post Construction Development Standards

•The storm water program is challenged by an overwhelming amount of work. Simply keeping track of all the new and terminated permits and answering questions about bills is a full time job.

•Our biggest challenge this year is to update Phase I storm water permits for Bakersfield, Fresno, Modesto, Stockton and Sacramento.

•For the first time we will be implementing TMDLs through our storm water permits.

•Another new challenge is that we are implementing post construction development standards, requiring developers to put storm water treatment practices in place that will continue to treat storm water after projects have been constructed.

NPDES Storm Water

- Steps to Address Challenges
 - ◆ Student assistants
 - ◆ Staff dedicated to Phase I
 - ◆ EPA/TetraTech Assistance
 - ◆ Water Quality Certs/ local storm water programs

In order to meet these challenges, we are relying heavily on student assistance to complete as much of our admin work as possible.

- We have assigned dedicated staff to update Phase I permits and have sought and received assistance from fed EPA in writing the Fresno and Bakersfield permits. We will also be using the EPA contractor to conduct additional inspections of our industrial facilities.
- We are working closely with the water quality certification program and local agencies to ensure the post construction development standards are implemented.

Water Quality Certifications

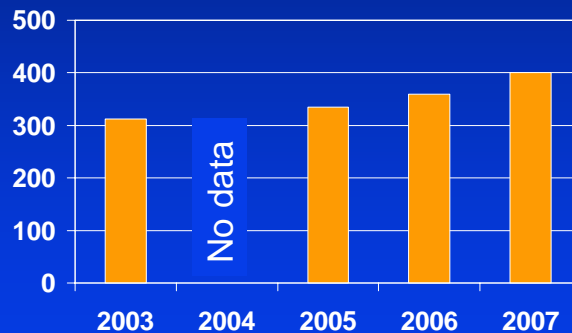
- 400 water quality certifications processed per year
 - Collect \$1 million in fees / receive 1/3 for staff resources
 - Staffing
 - ◆ 2.6 PY currently
 - ◆ 130 additional PYs Needed Statewide
- FY 01/02 Needs Assessment



- At the Region, we commonly receive applications for water quality certifications for projects associated with the dredging/filling of wetlands.
- Before anyone can fill wetlands the Corps of Engineers requires a certification from the state that the proposed project complies with the State's water quality laws.
- We have been overwhelmed with applications for certification. We also collect far more in fees than is returned to us.
- The fees collected in our Region to process certifications were about \$1 million, but we only received about 1/3 of those funds for staff to support the program. State Water Board is fully aware of this concern.

Water Quality Certifications

● Accomplishments # Certs Processed



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The program primarily involves a review of applications and we issue certifications include common water quality protection measures, such as prohibiting discharge of petroleum projects, monitoring receiving waters.

- The number of applications has been steadily increasing and are all supposed to be reviewed within a 60-day timeline. We have about 100 backlogged certifications and some that are over the 60-day review period.
- We have been successful in making efficient use of the certification process to also address construction storm water issues. We are including construction storm water protection standards in the certifications for large projects (100 acres or 100 residential units and above).

Water Quality Certifications

- Challenges
 - ◆ No pre/post inspections of projects, mitigation monitoring or enforcement
 - ◆ Ensuring federal/State “no net loss” of wetlands policy goals are met
- Steps to address challenges
 - ◆ Using some storm water resources to supplement program

- No field verification of conditions is made either prior to certification nor after certification to determine if the project is properly mitigated.

- There are no staff resources to follow up on citizen complaints of illegal fill of wetlands. Complaints are forwarded to other agencies who are also understaffed.

- The States no net loss policy is implemented on an acreage basis but not on a functions and value basis. Lack of field verification also makes it difficult to ensure the “no net loss” policy is being met.

- Recent Court decisions have forced the Corps of Engineers to make determinations that many waters are not federally regulated. As a result, this places an extra burden on staff to determine mitigations and discharge limits when the Corps and US Fish and Wildlife are not involved.

Irrigated Lands

- ~85% of all irrigated lands in R5
- >5 million acres enrolled under Waiver
- Staffing
 - ◆ 14.2 PY currently
 - ~80% of PYs to Regions



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- The Central Valley is home to a multi-billion dollar agricultural industry
- Approx. 85% of all irrigated lands are situated in the Central valley
- We have over 5 million acres enrolled representing over 70,000 parcels of land and greater than 25,000 participants currently enrolled in our Waiver
- Currently have 14.2 Pys throughout our office assigned to this program
- This accounts for approx. 80% of the PYs distributed to regions throughout CA

Irrigated Lands Program

- Accomplishments
 - ◆ 34% enrollment increase due to Board imposed deadline
 - ◆ Monitoring - identifying areas/pollutants of concern
 - ◆ Management plans to address exceedances are being submitted
 - ◆ 1,400 13267 Orders to non-participants

Kelly is working diligently on the next step of enforcement for those that have not responded to our requests.

Irrigated Lands Program

- Challenges
 - ◆ Addressing ground water discharges
 - ◆ Designing cost effective/ scientifically defensible MRP to characterize discharge from 70,000 parcels
 - ◆ Confirming implementation and effectiveness of management practices in addressing exceedances

Irrigated Lands Program

- Steps to address challenges
 - ◆ Developing programmatic EIR
 - ◆ Collaborative process through Technical Issues Committee and outside peer review for revision of MRP
 - ◆ Management plans will include strategies to determine effectiveness of management practices

•EIR will address both surface and groundwater

•EIR will determine what our long-term ILP program will look like and will address if we are to regulate groundwater.

Timber Harvest

- 45% of State's harvested timber
- Review timber harvest plans & USFS Sales to determine compliance with waiver
- Staffing
 - ◆ 9.2 current



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•Our Region has about 45% of the State's harvested timber, which is equivalent to the harvested timber in the North Coast Regional Board. This work is done predominantly in our Redding office.

•We review timber harvest plans and US Forest Service sales to determine compliance with the waiver.

•Staff for equivalent area about 1/2 of North Coast RB resources

Timber Harvest

- Accomplishments
 - ◆ Waiver revised April 2005 & MRP added
 - ◆ Education of industry groups
 - ◆ Improved relationships w/ BLM, USFS, & Counties
 - ◆ Increased post timber harvest inspections

- The adoption of the revised waiver in April 2005 and MRP has resulted in improved timber operations & road construction.
- The dischargers are involved in monitoring before/after rains
- Staff have provided outreach to industry groups on WQ protection
- We have improved relationships with the Bureau of Land Management, US Forest Service, and the counties and have been participating in a variety of interagency work groups to ensure water quality issues are addressed as part of timber harvesting.
- Staff have also increased the number of post timber harvest inspections.

Timber Harvest

- Challenges

- ◆ Adequate monitoring to evaluate compliance
- ◆ Tracking/overseeing 1,000s of projects

- Steps to Address Challenges

- ◆ Discharger monitoring guidelines
- ◆ Improved use of GIS system
- ◆ Develop monitoring report guidelines



- It is challenging to ensure that the timber harvest sites have adequate monitoring to evaluate compliance.

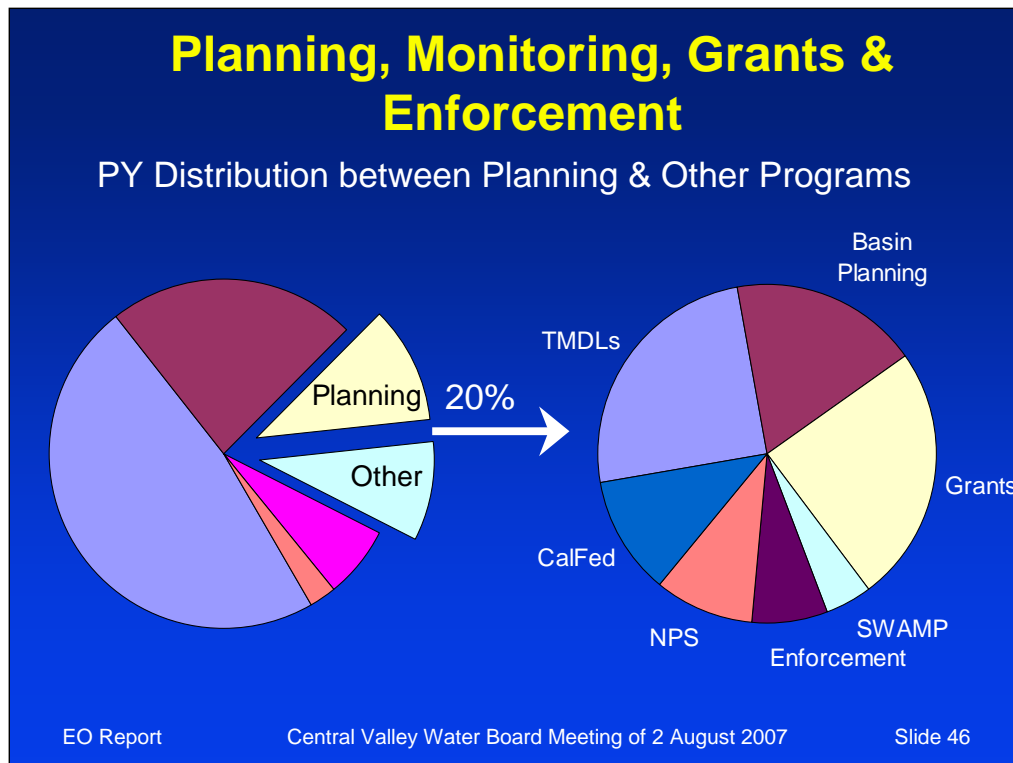
- We also have 1,000s of projects that we are trying to track and oversee.

- To address these challenges,

- We have developed discharger monitoring guidelines.

- Improved our use of GIS to track timber operations, monitoring sites, and identify areas for inspection.

- We have also developed monitoring report guidelines.



- “Planning” includes TMDLs, CalFed, and Basin Planning (approx 11% or greater than ½ of the other). The TMDL and CalFed funds are used together to address our priority water quality problems through the development of new regulatory policies – usually through Basin Plan Amendments.

- Other includes those programs associated with nonpoint source and enforcement. NPS funds go to grant management, TMDL implementation, working with watershed groups.

Planning and Monitoring



Total Maximum Daily Loads (TMDLs)

- Over 300 water body/
pollutant combinations
identified as “impaired”
- Staffing
 - ◆ 12.9 PY TMDL funds
+ 3 PY other sources



- There are over 300 water body/pollutant combinations identified as “impaired” or not meeting water quality objectives.
- The resources we have fund about 12.9 positions, but we supplement the program with funding from closely related programs such as CalFed and nonpoint sources.
- The CalFed record of decision identified the same water quality problems that are our highest priorities in the TMDL program.
- We have very few resources for TMDL implementation.

Total Maximum Daily Loads (TMDLs)

- Accomplishments
 - ◆ Adoption of TMDLs for major waterways and pollutants
 - ◆ Water quality improvements (diazinon/chlorpyrifos, selenium)
 - ◆ Early implementation actions and needed studies

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- We have successfully adopted and received approval of TMDLs for the Sacramento River, San Joaquin River, Delta, Clear Lake, Cache Creek, and the Stockton Deep Water Ship Channel
- The TMDLs have addressed pollutants such as mercury, pesticides, selenium, salt, boron, and dissolved oxygen
- We have observed water quality improvements for selenium in the San Joaquin River and diazinon and chlorpyrifos in the Sacramento, Feather, and San Joaquin Rivers, as well as the Delta.
- Even before final approval of TMDLs, some dischargers are taking early action to control runoff of the impairing pollutants or conducting studies to fill data gaps.

Total Maximum Daily Loads (TMDLs)

- Challenges

- ◆ Lack of clear water quality objectives or endpoints
- ◆ Implementing TMDLs once approved

- Steps to Address Challenges

- ◆ Adopting water quality objectives/revising uses
- ◆ Developing internal implementation plans

•There are a limited number of numeric objectives in our Basin Plans. It is a challenge to define the assimilative capacity, when the acceptable concentration of pollutants in the water body have not been defined.

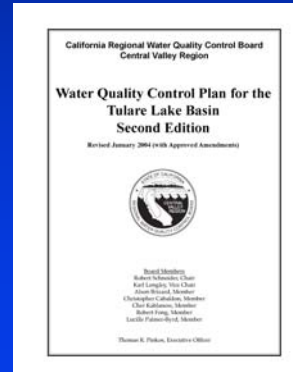
•In our Region, we generally adopt numeric water quality objectives, when we adopt the TMDL. We will also revise the beneficial uses, when needed to provide regulatory clarity regarding the water quality goals we are trying to achieve.

•TMDLs are not self-implementing. The key provisions must be reflected in applicable WDRs or waivers.

•Since TMDLs often affect multiple programs, we are developing internal implementation plans to clarify programmatic roles & responsibilities for implementation of the TMDL.

Basin Planning

- Sacramento/San Joaquin & Tulare Basin Plans provide regulatory foundation for all Board actions
- Current Resources
 - ◆ 0.6 PY – general planning
 - ◆ 9 PY – TMDL related
 - ◆ 1.75 PY - stakeholders



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•The Basin Plans provide the regulatory foundation for all Regional Board actions and need to be updated.

•Currently 0.6 PY of general Basin Planning funds available.

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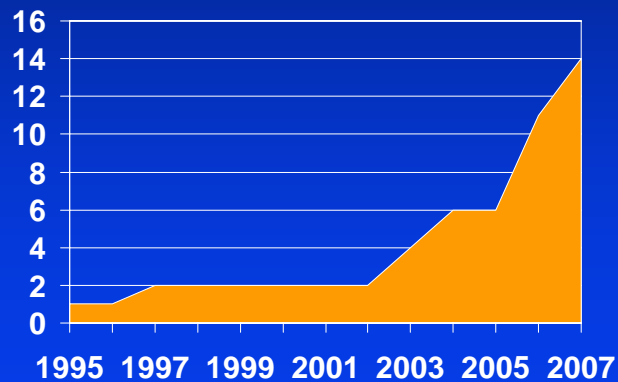
•Our TMDLs often result in Basin Plan Amendments and address water quality standards issues and result in new or revised Board policies.

•Dischargers and other interest groups have provided funding to address specific issues – development of a drinking water policy; analysis of beneficial uses in a waterway dominated by the discharger's effluent.

Basin Planning

- Accomplishments

Total # Amendments in Effect Since 1994



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- During the 1990's, Basin Planning activity was relatively modest.
- With addition of TMDL resources and resources from dischargers, the number of Basin Plan Amendments adopted by the Board and through the approval process has increased significantly.
- Since 1995, 1 Amendment adopted w/ag drainage funds; 2 Amendments have been adopted w/general Basin Planning funds; 3 Amendments w/discharger funds, and 8 amendments through the TMDL program
- Amendments address our most significant surface water quality problems and help solve difficult permit issues.
- Created the Delta Team as discussed by Karen Larsen earlier. The delta is the heart of our region and is the life-line for many people and fish that rely on delta waters. The delta problems are a critical concern of ours.
- Creation of the Salinity Policy Working Group and our efforts towards developing a Salt Management Policy through a Basin Plan Amendment

Basin Planning

- Challenges

- ◆ General policies in Basin Plan can be difficult to apply
- ◆ Takes years to go through process steps to address very complex issues

- Steps to Address Challenges

- ◆ Leveraging TMDL and other resources
- ◆ ID opportunities to address multiple issues for a given Amendment

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- Our Basin Plans contain a number of general policies that can be difficult to apply when dealing with the unique circumstances of specific permits or sites.
- The process steps to Amend a Basin Plan are time intensive (sequential approval by 4 different government bodies is required). The complex technical and policy issues often require a great deal of data gathering, research, and intensive stakeholder interaction.
- By addressing multiple policy issues through our TMDL program we are able to leverage our resources to refine and update the Basin Plans.
- We are always looking for opportunities to address multiple issues for a given Amendment to increase the efficiency of our Basin Planning efforts.
- As part of long-term plan the management team is looking for ways to allocate current resources to basin planning to address our critical needs.

Surface Water Ambient Monitoring Program (SWAMP)

- Monitoring/ assessing surface waters for 60,000 sq. miles
- Staffing
 - ◆ 2 PY
- Contracts
 - ◆ \$650,000



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Currently charged with monitoring ambient waters associated with the largest regional board in the state – covering approx. 60, 000 square miles

•We currently have 2 PYs allocated to SWAMP with accounts for approx. 12% of state-wide resources allocated to SWAMP

•We currently have funding for contracts up to \$650,000 which accounts for approx. 23% of the statewide regional board allocation.

Surface Water Ambient Monitoring Program (SWAMP)

- Accomplishments
 - ◆ Ambient Monitoring
 - ◆ Focused Studies
 - ◆ Region 5 SWAMP website
 - ◆ In-house ability to conduct bacteria analyses
 - ◆ Leveraged efforts of 9 other RB programs or projects
 - ◆ Providing clearer picture of surface water quality

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•We have done a very good job.

•Ambient monitoring - Long-term Trend Monitoring in the San Joaquin River Basin and rotational basin monitoring - 15 specific watersheds and 4 geographic areas covering ~60% of Region

•Focused studies -Endocrine disruption chemicals; nutrient loading model; bioassessment; sediment toxicity; urban creeks assessment

•Region 5 SWAMP website has been established.

•SWAMP program has coordinated with and leveraged its efforts with 9 other regional board programs or projects

•Collectively, these efforts are providing a clearer picture of surface water quality in the Central Valley.

Surface Water Ambient Monitoring Program (SWAMP)

- Challenges
 - ◆ Change in programmatic direction
 - ◆ SWAMP comparability of all surface water monitoring efforts
 - ◆ Maximizing limited resources

The focus of the program has been changed to better address State-wide assessment needs, rather than regional priorities

- This change is in response to a SWAMP review commissioned by the State Board and is consistent with the recommendations from the review
- SWAMP is charged with ensuring the SWAMP comparability of all surface water monitoring efforts associated with Regional Board programs and requirements

Surface Water Ambient Monitoring Program (SWAMP)

- Steps to address challenge
 - ◆ Hired monitoring coordinator / database manager
 - ◆ Revising sampling framework
 - ◆ Developing 5-yr plan for Region-wide comparability

Hired a monitoring coordinator and database manager to help coordinate with other programs internally and manage the large amounts of information that is being gathered.

- The sampling framework is being revised to fill data gaps in current programs and assess long term trends

Grants, Enforcement, and Non Point Source



Grants

- Currently managing over 80 grants totaling nearly \$70 million
- Current Resources
 - ◆ 12.8 PY
 - ◆ Reduced to 9.2 PY for FY 07/08
 - ◆ 0.5 PY Proposed budget



Grower Outreach
Sprayer Calibration

• Statewide grant funding available for water quality improvement projects has increased dramatically from the 1990's up to the voter approved Prop 84 in 2006. The State Water Board delegates the grant management of many projects to the Regional Boards.

• Currently over 80 grants are being managed by 28 grant managers.

• As the water bonds funds wind down the State Water Board will continue to incrementally reduce each region's PY allocation.

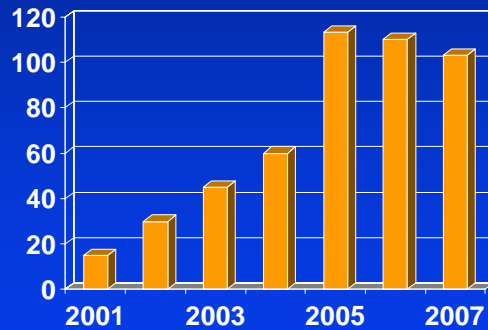
• Our PY allocation for FY 07-08 has been reduced by 3.6 PY from the previous FY as Prop 40 and 50 grants decline. (about 30% of State-wide total)

• As stated earlier the proposed budget includes a small allocation of Pys for Prop 84 activities.

Grants

● Accomplishments

Total # Active Grants



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- Grants funds have been awarded by the State Water Board to address many of the Region's high priority water quality problems. Projects managed by our region include conducting watershed assessments, conducting monitoring, researching the effectiveness of management practices, and implementing pollution reduction measures with many projects focused on irrigated ag and dairy operations.

- The number of grants increased sharply with the passage of a number of bonds. Most of the grants are awarded for a term of three years and will be winding down over the next 3-5 years.

Grants

- Challenges

- ◆ Ensuring grant projects are accomplishing stated goals, on task, and on time
- ◆ Technology/knowledge transfer for successful projects

- Steps to Address Challenges

- ◆ Grant Managers Meetings/Trainings
- ◆ Develop tracking system to capture grant outcomes

- Challenges for all the grant managers are keeping projects on task and on time.
- Regular internal meetings and training to maintain consistency and provide the tools necessary to keep grants on task.
- Concerns with time extensions being allotted without allocation of resources. Delays occur for many reasons that are beyond the control of the grantees. We will be incurring staff time to manage grants without compensation for our time.
- Work with the State Water Board to improve training and guidance for grant managers and grantees to efficiently use the resources allocated.
- To assist in technology/knowledge transfer a tracking system is under development that will allow other programs within the region to search for grant projects that may have useful monitoring information, management practice data, or other types of reporting which will allow for wider distribution of the information generated by grant projects.

Non Point Source Program

- Federal 319(h) or “Non-Point Source”
 - ◆ Grant management
 - ◆ Working w/watershed groups
 - ◆ TMDL Implementation
- Staffing
 - ◆ 4.1 Current



•Non point source program funds are used to support efforts to address NPS discharges as part of the grant and TMDL programs. In addition, the funds are used to support staff outreach and technical support to watershed groups who are working on their local runoff problems.

•Photo – upper Feather River watershed – 319h project supported monitoring by the Feather River Coordinated Resource Management Program – a local watershed group

Non Point Source Program

- Accomplishments
 - ◆ Provided seed money and support for many local watershed groups
 - ◆ Funded dozens of projects to reduce non-point source runoff



Photo – Biological Agriculture Systems in Cotton (BASIC). Implementation of management practices to reduce use of synthetic fertilizers and pesticides. Photo shows habitat next to cotton field that harbors beneficial insects.

Non Point Source Program

● Challenges

- ◆ Implementation of NPS management measures
- ◆ Addressing “low profile” non point sources
 - Marinas
 - Rangeland



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- There are federal requirements to implement non-point source management measures for a variety of NPS pollutant sources.
- Some NPS currently have a low profile, but may be causing pollution problems, and are not being addressed by any of our regulatory programs.
- Management measures are being implemented as a result of our actions through the Irrigated Lands, Timber Harvest, and TMDL programs.
- We are participating in inter-agency work groups to address other non-point sources.

Non Point Source Program

- Steps to address challenges
 - ◆ Management measures implemented through Irrigated Lands, Timber Harvest, and TMDL programs
 - ◆ Participating in inter-agency work groups

Organizational



Organizational

- Accomplishments
 - ◆ Established Executive Management Group
 - ◆ Developing Program Manuals
 - ◆ Established Region-wide priorities

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- Inconsistency and lack of coordination between offices. If desired to be successful in change or improving efficiencies needed to get executive group on board.

- Formed executive management group - EO and five AEOs
 - Meet monthly, face-to-face
 - develop decision management guidance documents to help and guide staff
 - opportunity to discuss differences, issues and agreements to improve efficiencies and consistencies between offices.

- Developing program manuals to be used by new and existing staff
 - manuals will ensure consistency in program
 - used as a reference tool to define and identify program approaches, documents, materials and resource requirements.

- Leadership team working together to establish region-wide priorities. Meeting to help identify projects we need do to improve efficiencies and consistency and identify priorities.

Organizational

- Challenges
 - ◆ Achieving “appropriate” intra-program consistency
 - ◆ Coordinating/leveraging various programs to address common issues
 - ◆ Aligning program outputs with water quality outcomes
 - ◆ Data Base Management and Maintenance

Organizational

- Steps to Address Challenges
 - ◆ Executive Management Group
 - ◆ Improved Leadership Team Communication/Involvement
 - ◆ Improved database management and use protocols, rules and processes
 - ◆ Internal programmatic Round Tables/ staff training
 - ◆ Inter-program coordination meetings
 - ◆ Leadership/Project Management Training

- Activities in board overlap and sometimes may be in conflict. Ensure Program Managers communicate with one another so we are consistent in application

- Example - Wetlands - 401 Certification and Methyl Mercury TMDL

- Finding ways to leverage our resources

- Evaluating our activities to ensure our activities and resources are aligned with our priorities. Our resources spent will be a benefit and address our highest water quality issues.

- CIWQS - current review report was very good

- State Board has made it clear CIWQS is our system and will do all they can to fix the problems. State Board actively working to address the problems

- We need to address our database issues.

- Evaluating business process flows to ensure data entry is done at the right level and being done consistently throughout region.

- Working with UC Davis to develop a leadership project management and training program for staff to improve our time management and project management skills.

Summary

- Exceptional, highly qualified technical staff
 - ◆ Significant achievements to protect, enhance and restore water quality given significant resource challenges
- Superb support staff
- Outstanding Leadership Team
- Continue to assess and implement changes to improve efficiency and to reduce inconsistencies and redundancies
- Continue to assess and identify needs

Questions?

