



Clean Water Act Section 401 Water Quality Certifications: Evolving Regulatory Approaches

Jeremy Haas

Environmental Scientist

California Regional Water Quality Control
Board, San Diego

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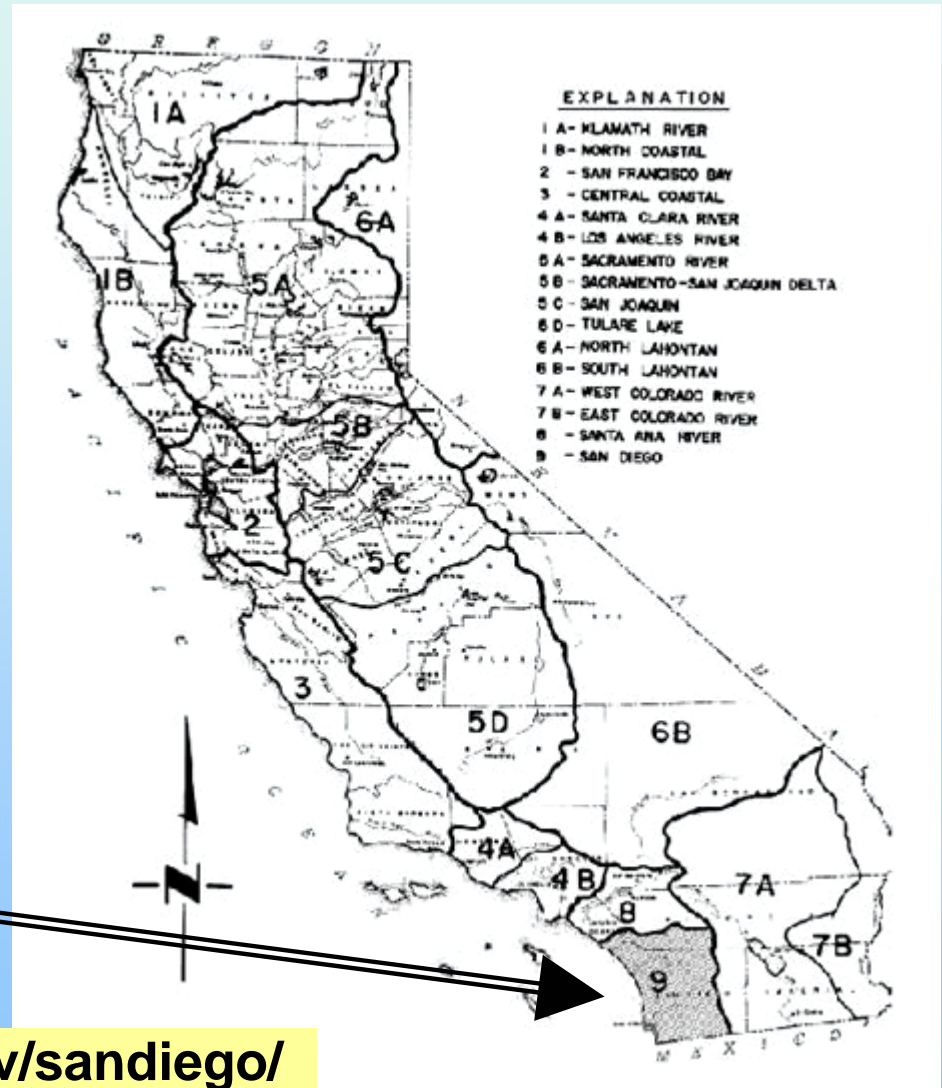
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Overview

- I. Background on Regional Water Board and Section 401 Program
- II. Proliferation of Recent Studies and Scientific Information
- III. How the Regional Board Program Responds to New Information
- IV. What it Means for Applicants

I. Who is the San Diego Regional Water Board?

- One of nine regional boards
- Nine Governor-appointedees
- Planning and Permitting
- San Diego, Orange, and Riverside Counties



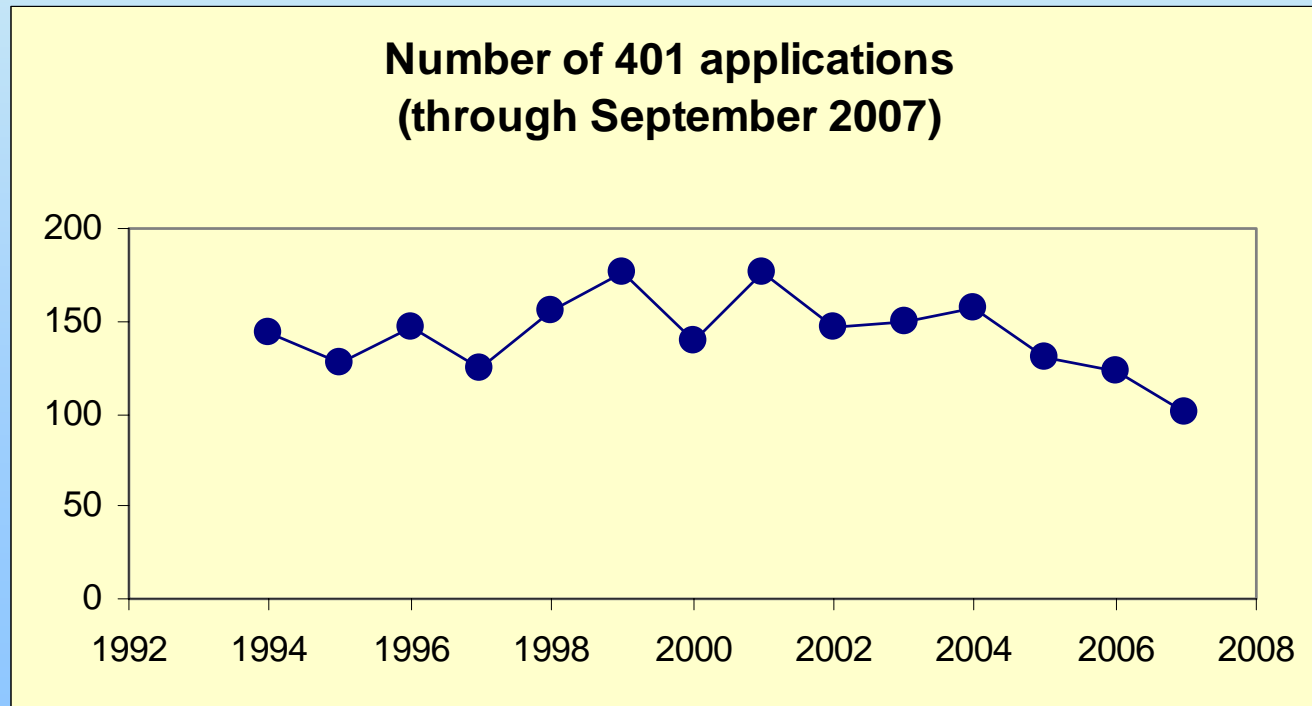
<http://www.waterboards.ca.gov/sandiego/>

What do we do with CWA Section 401?

- State “certifies” federally-permitted activities will protect water quality standards.
 - Beneficial uses, water quality objectives, and non-degradation of high quality waters.
- Examples: Discharges of inert fill or waste, harbor dredging, hydroelectric facilities, flood control, land development, etc.

This is a relatively new, but intensive program

Since 1994, San Diego Region has averaged 144 applications per year, excluding emergency projects.



Can projects protect water quality?

- Beneficial uses are typically affected
- First, preventative actions,
 - can discharges be avoided or reduced?
 - storm water management planning?
- Then compensatory mitigation
 - Replace degraded beneficial uses (e.g., recreation, habitat, water supply, etc)
 - Hydromodification and pollution abatement
 - “No net loss” policy

II. There has been substantial related research over the last few years

- Hydrology, biology, aquatic chemistry, civil engineering, microbiology, etc.
- Local, state-wide, and national efforts
- Peer-review journals, gov't reports
- Improves ability to assess potential effects



Journals with recent (2007) articles on Southern California aquatic environments:

Wetlands...Environmental Science & Technology...Freshwater Biology...Environmental Pollution... Landscape and Urban Planning... Ecosystems... Biological Invasions...JAWRA...

And, we've recently evaluated our 401 program

State Water Board Mitigation Site Study

- Watershed, regional and statewide evaluations
 - Technical issues
 - Administrative issues
 - Compliance issues
- Review of applications, requirements, compliance, and mitigation effectiveness

An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991-2002.



Richard F. Ambrose¹
John C. Callaway²
Steven F. Lee³

¹University of California, Los Angeles

²University of San Francisco

Prepared for:

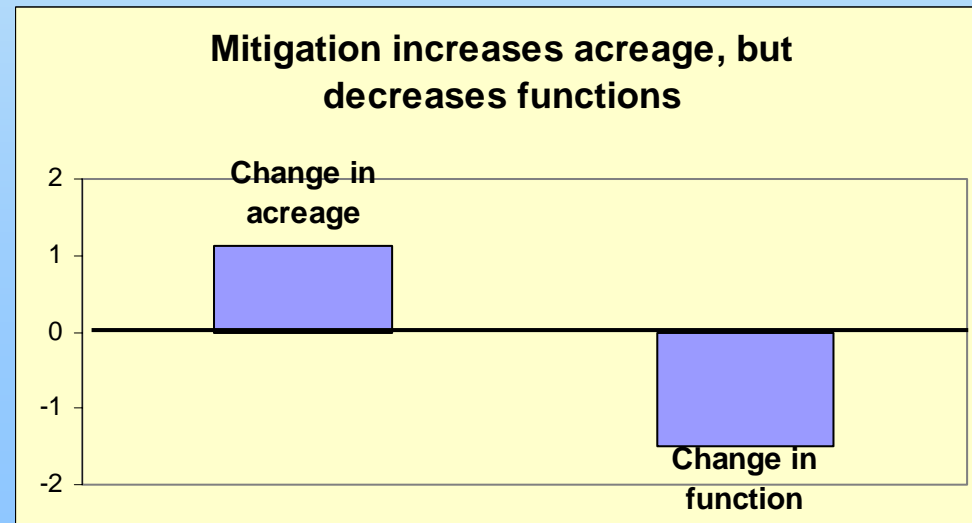
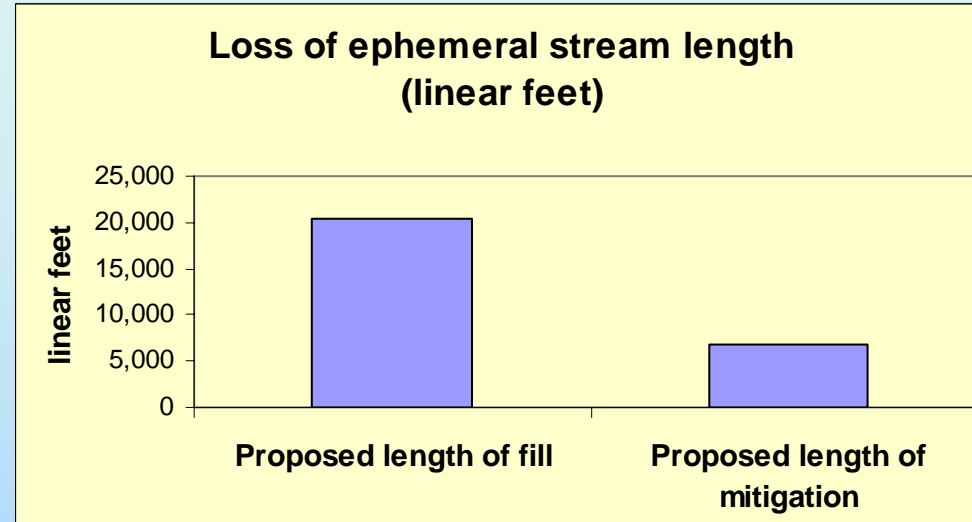
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We've learned technical lessons

- Mitigation sites exist, but lack function
- Losing aquatic habitat diversity affects beneficial uses
- BMPs reduce the level of potential pollution, but might not protect beneficial uses
- Hydromodification is a runaway train

Regional Board Mitigation Study of Selected Santa Margarita Sites



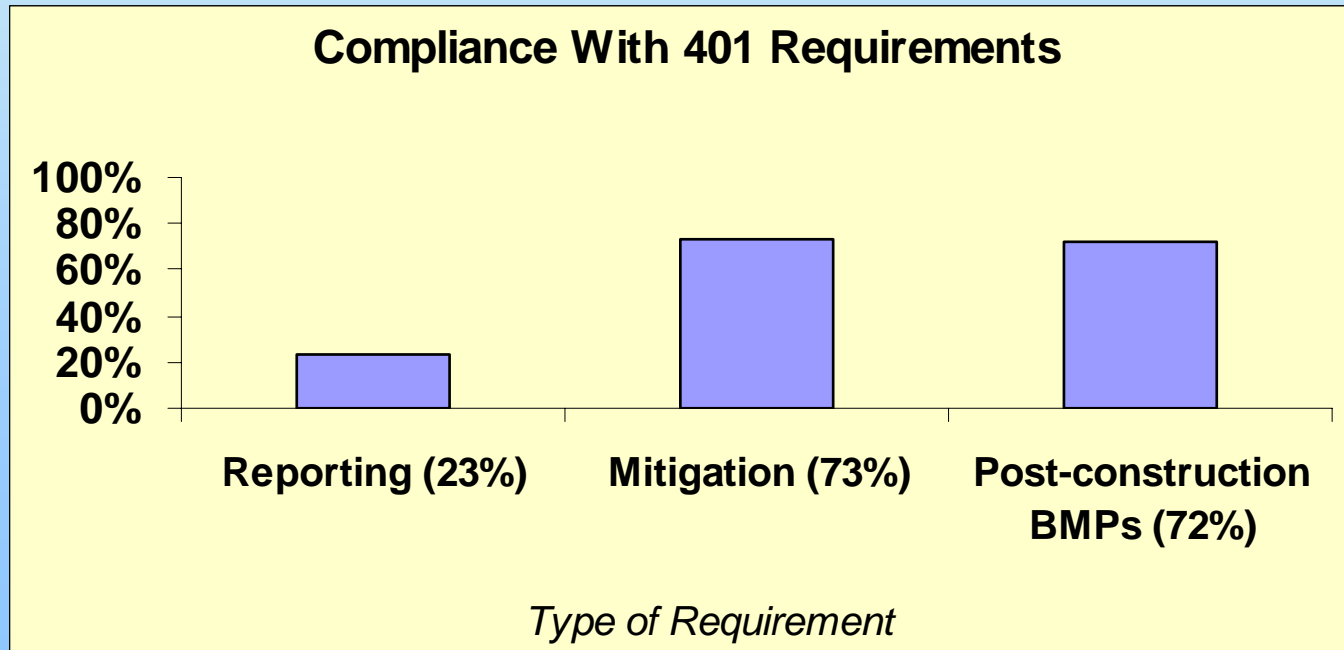
We've also learned administrative lessons

- Responsible parties
 - Responsible parties can vanish (e.g., LLC)
 - Transfer of responsibilities to unprepared entities causes problems (e.g., to HOAs).
- Information management
 - Fill and mitigation sites
 - Compliance deadlines
 - Monitoring results

We've assessed compliance rates

- We're not catching violations of certifications, but enforcement works
- Everyone needs more accountability

Regional Board 401 Regionwide Compliance Study



III. We've developed ways to assimilate all that information

- Statewide water board roundtables
- State Water Board training academy
- Focused training and professional development
- In-house program meetings
- Journal reviews
- New database systems

The Regional Board is responding to program and research findings

- Revamping application form to gather useful and useable information
- Redirecting effort toward responsive applicants
- Improving the types and content of requirements
- Integrating information across programs (e.g., storm water, enforcement, site cleanup)
- Increasing use of information technology

IV. We are targeting requirements to lessons and latest research

- **Technical**
 - Performance criteria (habitat, water quality)
 - Site assessments (fill and mitigation sites)
 - Critical BMP reviews (proposed land-use and receiving water conditions)
- **Administrative**
 - Responsible party assurances
 - Use of databases for tracking
 - Electronic files and GIS compatibility

We are addressing compliance assurance

- Specificity in requirements
- Site inspections and evaluations
- More and quicker enforcement actions

Land developer straightened and filled channel without 401 Certification



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Public agency filled stream channel and lacked BMPs



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New requirements will focus on the lessons we've learned

- In-kind mitigation
- Electronic submittals (maybe web-based)
- Functional assessments and performance criteria
- TMDLs and impaired (303d) water bodies
 - No increases in loads to impaired waters
- Water quality monitoring
- Specific species needs

Contact Information

Jeremy Haas

California Regional Water Quality Control Board,
San Diego

858-467-2735

jhaas@waterboards.ca.gov

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