

US EPA ARCHIVE DOCUMENT



**From Field to Faucet,
Sacramento River Joint Source
Water Protection**

**Western States Source Water
and Ground Water Protection
Forum**

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Acknowledgements

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- **Pesticides Advisor**
 - **Kelly Moran, TDC Environmental**

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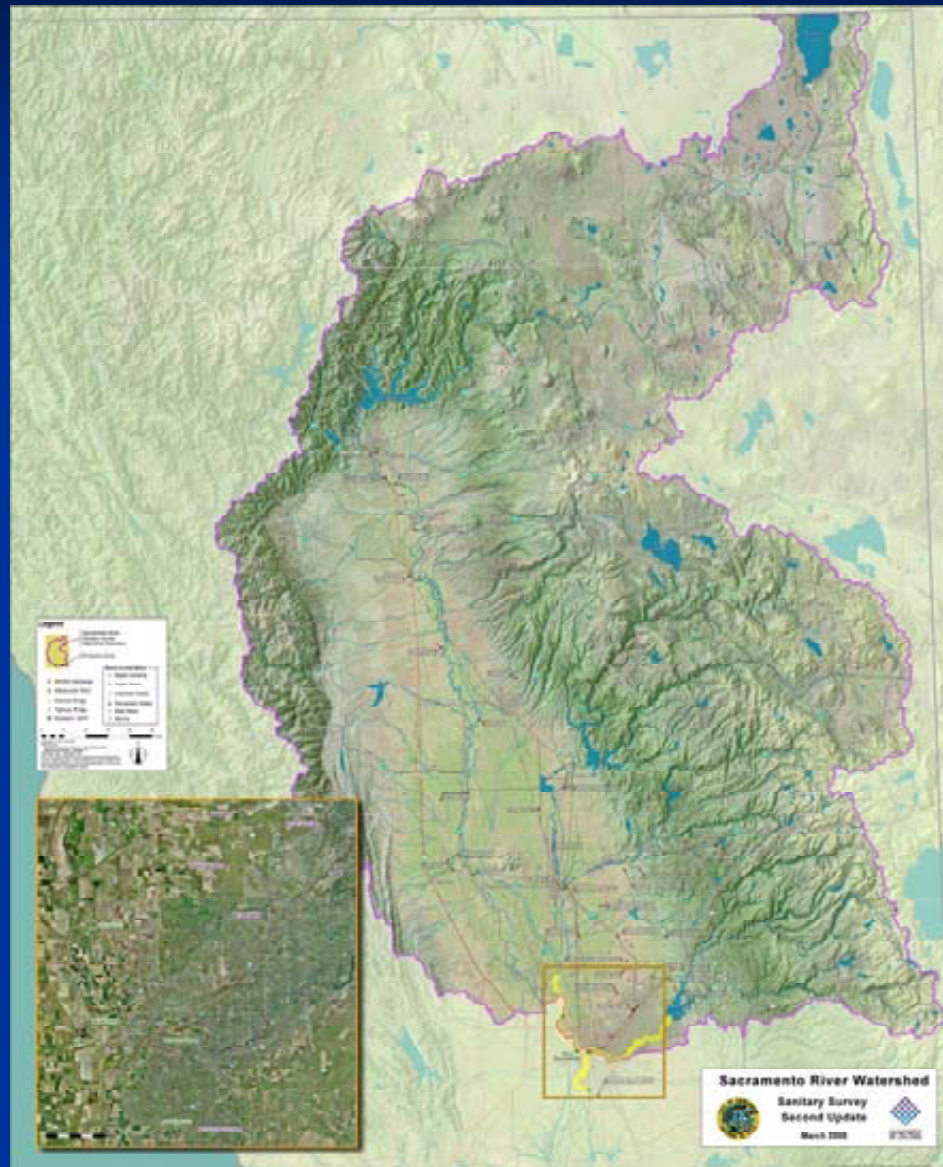
- **Sponsors:**
 - **City of Sacramento**
 - **City of West Sacramento**
 - **City of Roseville**
 - **County of Sacramento, Dept. of Water Resources**
 - **East Bay Municipal Utility District**
 - **Placer County Water Agency**



Overview

- **Introduction to the Joint Sacramento River Source Water Protection Program**
- **Rice Stewardship Program**
 - **Why did the program get started?**
 - **Program overview**
- **Evolution of working relationship with rice industry**
- **Changes that occurred as a result of relationship**
- **Lessons learned**
- **Q&A/Discussion**

Sacramento River Watershed



Source Water Protection Program Overview

Proactive Program

- Protection of high quality drinking water
- Good stewardship
- Stakeholder involvement
- High consumer confidence
- **Program Activities Include:**
 - Watershed Sanitary Surveys
 - Rice Pesticide Stewardship Program
 - Pesticide Tracking Studies
 - Spill Notification Program
 - Education and Training to Operations Staff
 - Recreation Outreach



Rice Stewardship Program

Why did the program get started?

- **Sacramento River Watershed Sanitary Survey - Evaluation and findings**
- **Need for more information**
 - **Why increased detections of molinate and thiobencarb in the Sacramento River?**
 - **Could levels increase to exceed drinking water primary or secondary standards?**
 - **What may be causes of the observed increases?**
 - **Are there any Sacramento River water utilities' source water protection efforts that can help prevent levels of concern?**

Rice Pesticides Stewardship Program Overview

- **What's the issue?**
 - Significant amount of rice acreage
 - Direct application to flooded fields
 - Available pathways
 - Historical issues
 - Help prevent increased levels in the river
- **Water Utilities Program**
 - Stakeholder participation
 - Special Data Collection at Intakes
 - Technical evaluations

Evolution of Working Relationship

How it Began

- **Watershed Sanitary Survey findings**
- **Developing a better understanding of the issues**
- **Information Collection/Initial Meetings**
 - **California Rice Commission**
 - **Department of Pesticides Regulation**
 - **Regional Board staff**
 - **County Agricultural Commissioners**
- **Developing water utility approach**
 - **Data collection/sharing**
 - **Stakeholder input**
 - **Maintain good working relationships whenever possible to support win/win solutions or best reasonable solutions – on paper and in field**

Gaining Understanding

- **Coordination Meetings**
- **Rice Outreach Letter**
- **UC Rice Experiment Station Rice Field Day**
 - **Information table**
 - **Attending/Talking with folks**
 - **Gathering technical information**
 - **Connection with UC Farm Advisor**

Common Ground

- **Stewardship ethic**
- **Monitoring Programs – information sharing**
 - **Rice Pesticide Program**
 - **Valent's monitoring**
 - **Water Utilities special intake monitoring**
- **Operator to Operator Analogy**
- **Upstream/Downstream Neighbors**

Communications Example

- **Outreach Letter**
 - **Goal**
 - **Initial best effort - 2001**
 - **New improved version - 2005**
- **Distribution**
 - **CA Rice Commission**
 - **Agricultural Commissioners**
 - **UC Extension**

Original Outreach Letter

Protecting Our Future

The water that nurtures our crops is the same water that nurtures, refreshes and gives life to families in the Sacramento River



A message from your downstream neighbors...

As a rice grower, you are very aware of the important role water plays in the cycle of life. Water is truly the primary constituent of life.

It is important to keep seepage contained at the site, and to not allow seepage to move into waterways.

The Sacramento River is a common bond and a vital resource for all of us living in its watershed. Your neighbors downstream, the City of Sacramento, City of West Sacramento, County of Sacramento, and East Bay Municipal Utility District, have many local water quality protection programs. It is also important for our neighbors upstream to do all they can to prevent rice pesticides from reaching the Sacramento River.

Drainage water from most rice fields eventually ends up in the Sacramento River. Rice pesticides can make their way into our municipal water supply through aerial drift, seepage, or direct discharges. The increase in pesticide use to address weed resistance creates the need for increased vigilance to prevent water quality impacts to adjacent waterways.



The Rice Pesticide Program requires rice growers to comply with specific management practices. Adhering to these practices greatly benefits water quality in the Sacramento River watershed.

Recent monitoring results show a trend of increased levels of Ordram™, Bolero™ and Abolish™ in the Sacramento River where the Cities of Sacramento and West Sacramento draw drinking water. Although the

"We forget that the water cycle and the life cycle are one."
—Jacques Cousteau

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detected levels do not yet exceed current health concern levels, we need to protect the public from the risk of exposure to pesticides and their breakdown products.

Bolero/Abolish™ breakdown products can impact the taste of our water supply, resulting in taste complaints from residents. Taste complaints are a signal that rice farming activities are impacting the quality of our drinking water.

There are approximately 500,000 acres planted to rice annually in the Sacramento Valley. Our concern is the residual effects of rice activities on the water quality of the Sacramento River.

We appreciate the water quality protection efforts of the rice growers. We also appreciate the efforts of other organizations working to protect the water quality of the Sacramento River, including:

- ◆ County Agricultural Commissioners
- ◆ California Rice Commission
- ◆ Department of Pesticide Regulation
- ◆ Central Valley Regional Water Quality Control Board
- ◆ California Department of Health Services
- ◆ Department of Fish and Game
- ◆ USDA Farm Service Agency
- ◆ Resource Conservation Districts
- ◆ University of California

Water is everyone's future. Let's all do what we can to protect it!




County of Sacramento
Department of Water Resources



City of Sacramento
Department of Utilities

New and Improved



Working Together to Protect the Sacramento River Watershed


Water — it is essential for all our lives. We use it to drink, clean, and farm. The water that nurtures rice crops in the Sacramento Valley is the same water used downstream of the rice growing area for drinking water.

Rice pesticides can make their way into local municipal water supplies. This can happen through aerial drift, seepage through rice levees, or early releases of rice field water.

Every year brings increasing weed control costs and herbicide resistance in California rice field weeds. These factors also bring new challenges associated with grower selection and sequencing of herbicide applications.

Rice growers continue to proactively implement management practices that minimize their impact on the quality of this water. Examples include the establishment of new application methods and increased buffer zones to help protect the watershed and the Sacramento River. We appreciate your hard work and encourage you to continue these efforts.

There are approximately 500,000 acres of rice planted annually in the Sacramento Valley. Drainage water from most rice fields flows from agricultural drains into the Sacramento River.



● Bayle Reed Water Treatment Plant
 ■ Sacramento River Water Treatment Plant

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From your field to the Sacramento River Watershed...

The water used in your field drains to the Sacramento River. The people who live downstream greatly appreciate the accomplishments and efforts of the rice industry. We also understand that environmental preservation does not rest with your efforts alone.

We work closely within our urban communities on local stewardship efforts that include the *Water Wise For General Programs*, the *Clean Water Business Partner Program*, the *Keep Our Waters Clean* campaign, *Our Water Our World*, and workshops on Developer / Contractor Best Management Practices.

As people who utilize and love the rivers and waters of the Sacramento Valley, we thank you and ask that you continue your work to help make our waterways clean and safe.


Rice and Water Facts:

- Rice is the staple diet of half the world's population — it is truly a universal food.
- The Sacramento River provides two-thirds of the state's drinking water.
- Rice farming has been traced back to around 5,000 B.C.
- The Sacramento River supports a multibillion dollar agriculture industry.
- In California, rice annually provides more than \$500 million in revenue and thousands of vital jobs to California.
- The Sacramento River watershed is more than 27,000 square miles, and is one of the largest in the United States.

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We value the efforts of rice growers to protect water quality. We also want to thank:

- California Rice Commission
- County Agricultural Commissioners
- Department of Pesticide Regulation
- State Water Resources Control Board
- California Department of Health Services
- Department of Fish and Game
- USDA Farm Service Agency
- Resource Conservation Districts
- University of California
- Sacramento Rice Watershed Program




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Case Study – Thiobencarb Ultramax

- **Technical Issue**
- **Doing our research**
- **Working Relationships**
- **Positive Solution**

Changes that Occurred as a Result of Working Relationship

- **Reduced thiobencarb detections in the Sacramento River from 2003-2007**
- **Better mutual understanding of water utilities and rice industry issues and concerns**
- **Improved information sharing by rice industry with water utilities**
- **Routes of communications**
- **Opportunity for water utility input directly to rice industry, so industry group can obtain credit if they agree with our suggestions or requests**
- **Recognition to rice industry for having positive working relationship with water utilities**

Lessons Learned

- What does a working relationship look like?
- Relationship building takes time
- Gaining mutual understanding
- Different styles of communication
- Sensitivities/Importance of word choices
- Positive strokes/show support for good stewardship and environmental protection initiative
- Stakeholder approach provides best opportunity to encourage information sharing, industry participation/ownership, and positive results

Questions/Contact Information

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