9/13/07 Workshop
Irrigated Lands Program
Deadline: 9/4/07 Noon

UNIVERSITY OF CALIFORNIA, DAVIS

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4 September 2007

Mr. Ryan Maughan
Division of Water Quality
State Water Resources Control Board
1001 I Street, 15th Floor
Sacramento, CA 95814

Subject: Comment Letter – September 13, 2007 Irrigated Lands Program Joint Workshop

Dear Mr. Maughan:

The Monitoring and Reporting Program (MRP) required by the CVRWQCB includes a series of activities. These include: 1. identifying pollutants of concern in affected surface waters, 2. quantifying the amount and time of occurrence of the pollutant(s), 3. identifying the source of pollutant(s) within an agricultural watershed, 4. identifying Best Management Practices (BMPs) that could be used to reduce the occurrence of the pollutant(s) in receiving water bodies, and 5. assessing trends in pollutant(s) in receiving bodies.

Currently, monitoring is assigned to local water quality Coalitions, organized by agricultural producers in association with irrigation or drainage districts, watersheds or some combination of characteristics allowing for combined assessment. These groups currently monitor surface waters for pollutants specified by the CVRWQCB, often based on the US EPA 303(d) list of pollutants. When exceedances of standards are observed, it is the task of the Coalition to identify the source and take corrective action.

Despite seeming clarity in these objectives, monitoring and then mitigating non-point source or landscape-scale pollution, whether from natural or anthropogenic sources, is difficult. To be effective we suggest that monitoring programs also be seen as discovery opportunities rather than simply regulatory triggers, that they be intensified incrementally based on the most important exceedance observations, and that they be tied to the capacity to carry out applied research on the development of corrective best management practices where needed. The link to BMP development will provide growers and the larger public confidence that NPS pollution issues when discovered will be linked to solutions that benefit all parts of society.

Since the founding of the first University of California campus in 1860 in Berkeley,

scientists at the University have carried out research on crops and production methods, pest management, farm economics, and increasingly in the last decades, on the environmental consequences of farming practices. This information has been communicated to farmers through the activities of the University's Cooperative Extension system, established for this purpose, including both county-based Advisors and statewide Specialists. Together with campus-based faculty, the University's scientists include many who carry out research on NPS pollution.

There are other sources of information available to the agricultural community besides the University, including other state and federal agencies, consultants, agricultural businesses and independent professionals, but the University is well regarded in the agricultural community for objective, science-based information and recommendations. As the CVRWQCB considers ways to improve the current agricultural waiver program, we believe that the University can play a significant role in helping agriculture comply with NPS standards. The University's strengths come from long association with agricultural community, the practical understanding of farming issues and general farm management of many of its scientists, and a successful history of developing practical farm management practices in response to the constantly changing sets of problems faced by farmers. UC scientists can advise on the development of effective monitoring plans for Coalition groups, help identify significant sources of agricultural pollutants, and especially develop BMPs to reduce or eliminate these problems where they are related to commonly employed farming practices. University of California Cooperative Extension (UCCE) in particular is qualified and well positioned to contribute to the Management Plans. We would like to outline UC capabilities.

1. Identification of agronomic practices contributing to water quality concerns. UCCE Farm Advisors and Specialists work with farmers on a daily basis regarding their agronomic practices. These practices include growers' chemical use as well as their management of soil and water resources. For example, UC has produced a number of Production Handbooks (approximately 10 available) for many of the major crops. Each Handbook details the agronomic practices associated with producing that crop. An example (Attachment 1) is the Almond Production Manual covering all aspects of almond production. Also available through the University of California Integrated Pest Management Program (UC IPM) are Pest Management Guidelines (approximately 45 available) which detail recommended pest management practices. Attachment 2, which is the Table of Contents for the Almond Pest Management Guidelines, is provided as an example. The greatest UC resource though are the UC Farm Advisors and Specialists who have invaluable knowledge of agronomic practices, accumulated through years of applied research and working directly with agricultural growers.

2. UC contributes significantly to the improvement of management practices mitigating water quality problems. The major component of the UCCE Farm Advisors' and Specialists' applied research programs is the identification and evaluation of improved agronomic practices. By the very nature of the UC Institution, that research is done in an open and unbiased manner, subject to peer review, and accepted by the agricultural community for its quality and integrity. Development of new, improved

agronomic practices is the "bread-and-butter" of UCCE Advisors and Specialists. It should be noted that consistent financial support for applied research into improved agronomic practices associated with water quality issues has declined internally and is difficult to find extramurally. Such research can be expensive, especially when chemical constituents water analyses is required and extensive sampling is required to evaluate a practice's effectiveness, and the support for such work has often been unavailable. The University of California also has individuals with considerable experience in developing scientifically-based monitoring programs to address a wide range of monitoring objectives. We believe that to be credible, the monitoring approach must be scientifically sound and that the limitations of a specific monitoring program be clearly defined.

3. Effective educational and outreach efforts to implement change are a UCCE specialty. Improved management practices must be extended and adopted by growers for there to be impact and improvements in water quality. The UCCE Advisors and Specialists routinely hold dozens of meetings per year for growers, consultants, and industry people. Especially the UC County-based Farm Advisors have an excellent network for contacting growers and agronomic professionals. Equally important, the UCCE Farm Advisors and Specialists have the educational experience and skills to deliver information on improved management practices. A recent survey in California Agriculture (July-September 2007 issue), reported that UC Cooperative Extension was one of the most trusted organizations among California growers. UC also has an extremely effective relationship with the crop commodity boards, representing many of the major California grown crops. These are a natural link to growers, providing another effective network for implementing the adoption of improved management practices.

In summary, the University of California and especially the University of California Cooperative Extension is an excellent resource for those developing Management Plans. UC has extensive resources for assessing agronomic practices that may contribute to water quality problems, for identification and development of improved management practices, and for providing outreach to the agricultural community to implement improved management practices. We hope that UC will be seen as a valuable resource by those associated with the development and implementation of the Irrigated Lands Program's Management Plans, and that consideration will be made to support these efforts as a formal part of the CVRWQCB's revised MRP.

Sincerely,

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Attachment 1: