

Attachment B

MOU Pilot Program Butte County Department of Agriculture 4th Quarter / Annual Report December 31, 2006

As required by contract # 05-183-150-0, the Butte County Department of Agriculture (Butte County) is to provide the Regional Water Quality Control Board (Regional Board) with a quarterly report of activities as it relates to the scope of work for the Irrigated Lands Program (ILP) contract.

This 4th Quarter Report will be a summary of all the significant achievements for the calendar year.

Task 1) *Provide information/maps, perform at least 5 pesticide application inspections, and investigate sites to identify sources of water quality exceedances for the ILP as authorized by the Regional Board.*

Butte County GIS map data of the hydrological information currently available in digital format was compiled and provided. This sub-task was completed and delivered on schedule.

An MOU with adjacent counties (Four County Water Resources Collaboration MOU) was established that allows (among other functions) county staff working on the ILP pilot program, to assist adjacent counties and watersheds with follow-up investigations on monitoring exceedance.

Five ILP pesticide application inspections were performed over the year. This sub-task is on going.

Butte County staff provided investigative services, field data, follow-up site visit and info gathering for the Biggs/Belton Canal E-coli exceedance during the sample event on 9/29/2006.

Task 2) *Inspect, assess and document management practices used in agricultural operations to protect water quality.*

Butte County staff performed 8 ILP agricultural management practices evaluation inspections:

- 6 inspections on orchard operations
- 1 inspection on a cattle grazing ranch
- 1 inspection on a managed wetland/game preserve

10 miles of the Pine Creek watershed / drainage was surveyed for existing management practices used by agricultural operations adjacent the creek:

- 15 agricultural operations having restricted materials permits were surveyed
- 40 agricultural parcels were surveyed on both sides of the creek

- 8258 total agricultural acres were surveyed for observable Management Practices (MPs)

This subtask is on going and will emphasized during the second year.

By way of task 2A, Butte County Ag Commissioner staff assisted a rancher in accessing funding through NRCS for the transition from gravity flood irrigation to pivot line sprinkler system and development of a tail water recovery system, a large-scale management practice.

A list of management practices observed during the inspection and survey activities has been compiled into a MP list/report that is still under development. The MP list/report will tie management practices to regulatory requirements, such as tillage instead of burning straw due to air pollution regulations. This sub-task is on going.

Task 3) *Assist the Regional Board in evaluating sample monitoring points for agricultural wastewater discharges and a list of pesticides used within Butte County.*

Agriculture Department staff evaluated two Sacramento Valley Water Quality Coalition (SVWQC) sites in Butte County:

- Butte Creek monitoring site
- Pine Creek monitoring site

Observation data was provided to the Regional Board Contract Manager. This sub-task was completed and delivered on schedule.

Butte County staff provided a current list of pesticides used in Butte County during 2004/05 from the Department of Pesticide Regulation (DPR) database and a list of Special Registration and Research Authorization chemicals. This sub-task was delivered on schedule and is ongoing, county staff provides up-dated information as it becomes available.

Task 4) *Coordinate and conduct outreach to growers on management practices that protect water quality.*

The Pine Creek watershed survey provided opportunities for face to face dialoged about the ILP and management practices with 17 growers adjacent to the creek.

Butte County staff has provided outreach through Power Point and oral presentations on the ILP to approximately 536 irrigators/growers at SVWQC, County Ag, grower continuing education/certification meetings and other agricultural affiliated groups and organization meetings.

Handouts and brochures that explain the Conditional Waiver, MOU pilot program, Coalition efforts and activities within subwatersheds continue to be provided at pesticide permit appointments. These sub-tasks are ongoing and will continue as opportunities for outreach present themselves.

Task 5) *Assist Regional Board staff by coordinating with other agencies and providing information and input that will further the implementation of the ILP.*

Butte County has coordinated with the Agricultural Commissioners of Glenn, Tehama, Yuba and Sutter Counties and with members of the Butte-Yuba-Sutter watershed, Resource Conservation Districts (RCDs), Natural Resource Conservation Services (NRCS) and many other agencies, regarding various aspects of the ILP and activities that address and explore issues, and promulgate knowledge concerning water quality and the agricultural industry.

Butte County staff has attended, participated in and organized ILP related functions and meetings throughout the contract year. A total of 43 such activities are documented:

- 10 meetings with Regional Board staff
- 11 subwatershed and SVWQC meetings
- 6 RCD and NRCS meetings
- 6 other ILP affiliated meetings
- 10 grower ILP outreach functions

Recommendations:

A great deal of time is being spent on reporting. Monthly and Quarterly reports are required, in addition to reports that document the inspections and other field activities. Streamlining or refining these requirements would free up more time for field related activities.

If the current level of reporting is justifiable, then more flexibility will be needed in the number of required inspections. Reducing the number of pesticide application inspections, which can take time and effort to coordinate, and increasing the number of management practice inspections, which is not tied to pesticide application, is more effective and gives more flexibility.

Invoicing flexibility for services and supplies is not available in the present contract and should be considered. Funds to cover mailing costs for ILP outreach and related issues are presently being covered through other programs and will likely not be available in the future.

Attachment C

MOU Pilot Program Glenn County Department of Agriculture 4th Quarter / Annual Report December 31, 2006

As required by contract # 05-182-150-0, the Glenn County Department of Agriculture (Glenn County) will provide the Regional Water Quality Control Board (Regional Board) with a quarterly report of activities as it relates to the scope of work for the Irrigated Lands Program (ILP) contract. The fourth quarter report will be combined as a 2006 Annual Report summarizing significant achievements for the 2006 calendar year.

All tasks have been completed on schedule and delivered to the Regional Board staff on time. Many sub-tasks are ongoing and will be updated as new information becomes available. Glenn County remains prepared to perform additional work that is requested from the Regional Board staff.

Glenn County has been proactive in developing and utilizing currently available materials to further the ILP outreach component. Glenn County staff has provided outreach through many meetings in addition to one-on-one outreach to growers during application and Best Management Practice (BMP) site evaluations. Numerous handouts, including Coalition for Urban/Rural Environmental Stewardship (CURES) BMP pamphlets, were provided to explain the position of the Regional Board, Sacramento Valley Water Coalition (SVWQC) efforts, and activities within subwatersheds. In addition to handouts available at meetings, Glenn County has done three separate mass mailings of BMP newsletters to pesticide permit holders within the county. Meetings at which Glenn County staff has given presentations are as follows:

- Glenn County 2005 Annual Grower Meeting (over 100 growers attended)
- Pesticide Dealer (Helena Chemical Company) Grower Meeting (over 80 growers attended)
- California Agricultural Commissioners and Sealers Association Spring Conference
- Butte County Water Commission Meeting

Glenn County staff also arranged for speakers to discuss and inform growers about the ILP during the Glenn County 2006 Annual Grower Meeting. In addition, there have been many phone calls answered to growers concerning the ILP requirements and receipt of 13267 enforcement letters. (Task 4, Task 5)

There are numerous meetings within the county that discuss water quality issues. Glenn County staff attends and participates with many other agencies that have a role in water quality. Staff has initiated coordination with the following organizations:

- Sacramento Valley Water Quality Coalition (SVWQC)
- SVWQC BMP committee
- SVWQC sampling team

- California Rice Commission (CRC) sampling team
- UC Cooperative Extension
- Glenn County Natural Resources Conservation Service (NRCS) Environmental Quality Incentive Program (EQIP)
- Glenn County Resource Conservation District (RCD)
- Colusa-Glenn and Shasta-Tehama sub-watershed groups
- Agricultural Commissioners of Butte, Colusa, Tehama, and Shasta Counties
- Local irrigation districts
- Pesticide Dealers and Agents

This type of coordination and notification is essential within our agencies. Glenn County staff assists NRCS by informing growers who can benefit from the EQIP programs that may be beneficial to water quality. Glenn County encourages these agencies to take an active role in water quality. The sharing of information between agencies is necessary for any and all investigative activities that may be requested by Regional Board staff. (Task 3, Task 5)

Glenn County staff observed sampling within the Colusa sub-watershed during both storm and irrigation events. Contacts have been set up with both SVWQC and CRC sampling teams. Glenn County staff accompanied the Regional Board Contract Manager to sampling sites in the Colusa-Glenn and Shasta-Tehama sub-watersheds to allow the Contract Manager to become familiar with the surroundings and cropping pattern. Glenn County has recently evaluated potential sites for sampling and has assisted the local sub-watershed to select new sampling locations "up-stream" of previous sampling locations for the SVWQC.

The February-March 2006 storm season sampling event showed pesticide exceedances in the Colusa sub-watershed of simazine and diazinon. Glenn County staff examined pesticide use records from the previous months. The names of growers identified as having reported use of these pesticides were forwarded to the sub-watershed coordinator. The sub-watershed sent a letter to those growers notifying them of the exceedances. The notification also included a reminder to use best management practices set up for the application of these and other pesticides.

Glenn County staff evaluated and was prepared to assist the Regional Board in investigating the area of the Shasta-Tehama sub-watershed monitoring location of Burch Creek, if requested. Glenn County also requested pesticide use records from Tehama County Agricultural Commissioner for the area mentioned above. (Task 1, Task 3, Task 4, Task 5)

A list of pesticides used in Glenn County during the 2004 calendar year was provided to the Regional Board Contract Manager from the Department of Pesticide Regulation (DPR) database. Glenn County staff also assembled a list of the pesticides used during 2005 from Pesticide Use Reports submitted to the Agricultural Commissioner's Office for the Regional Board. This information is more readily available in a timely manner from the

local Commissioner's office as opposed to DPR's release schedule. Staff is prepared to provide 2006 pesticide use information in the first quarter of 2007. (Task 3)

Glenn County staff has met with chemical distributor representatives (Pest Control Advisors) to discuss anticipated upcoming pesticide usage. Indications are that there would be more in-season insect sprays on almonds, and pesticides containing abamectin would be on the rise. (Task 3B, Task 5A)

The pesticide application inspections performed by Glenn County staff do not appear to be an effective method to determine potential degradation to a watershed. Each individual application, while important to the microenvironment, minimally influences the total load sampling on a large scale. It has been documented that the majority of growers and commercial applicators adhere to water quality conditions through recommendations from their pest control advisors and the Ag Commissioner's office. A suggestion would be to utilize the pesticide pre-application site inspection prior to an application similar to the one used by DPR. This method of evaluation would be more useful and provide an opportunity for outreach to growers and applicators before the application of materials that have a water quality concern. Pre-application site inspections address permit conditions for the application of California Restricted Materials, some of which indicate a water quality concern. Other materials that address the same concerns are not California Restricted and do not require a 24-hour notification prior to their application. In Glenn County, our Tri-County Bee Notification program presents an opportunity to collect more information about applications of pesticides with water quality concerns due to the fact that most chemicals that are toxic to honey bees are also toxic to aquatic life. The 48-hour notification prior to the application allows Glenn County staff another opportunity to perform pre-application site evaluations. (Task 1, Task 2, Task 4)

BMP evaluations were more effective at determining the potential benefits to water quality. Glenn County staff performed an evaluation on a large-scale grower with 1400 acres of orchards and 360 acres of rice. Management practices utilized were consistent and have proven effective throughout their operation. This grower was recognized as the "Conservationist of the Year" by the Glenn County RCD for 2006 and utilized EQIP programs that enhance water quality. Other BMP evaluations were done at grower operations ranging in size from 40 to 100 acres. Management practices that are in place were observed and documented in each report.

The Glenn County Surface Water Stewardship Program has previously documented many management practices in place in Glenn County. Examples of these practices include micro and drip irrigation systems, recirculation systems, water hold requirements for specific pesticides, and EQIP integrated pest management programs. (Task 2, Task 4, Task 5)

Glenn County staff is utilizing the BMP evaluations to undertake a large-scale watershed evaluation within the county. The Walker Creek Watershed has approximately 24,000 acres of irrigated croplands and 150 growers. Tasks identified to perform the evaluation include the following:

- Sampling
- Outreach to individual agricultural operators
- Survey development and evaluation with assistance of UC Extension staff
- Documentation of BMPs currently in place

Walker Creek Watershed is completely contained within Glenn County making collection and dissemination of data collection readily accessible and deliverable. This evaluation is being performed with the full cooperation of the sub-watershed and SVWQC. (Task 1, Task 2, Task 3, Task 4, Task 5)

Glenn County staff previously provided the Regional Board staff with a map of the currently available information of natural water bodies, agricultural canal systems, and to the best of their knowledge, constructed agricultural drains in an Arc View format. Staff is building on this original map, adding layers to update the Walker Creek Watershed area to include operators, parcels, cropping, drainages, irrigation type, and other information relevant to the watershed evaluation.

Glenn County uses an Arc View permitting program that has proven useful in the accumulation of information needed to conduct the evaluation. The Contract Manager was given a demonstration of the capabilities of this program. The new version, which thirty-three counties in California have committed to utilize, is progressing.

Additionally, Glenn County is attaining information about parcels not currently in the pesticide permitting system and adding them to the Arc View program. This allows staff to have a complete view of all parcels, agricultural or not, located within the watershed that may influence the quality of water. (Task 1)

Glenn County staff has completed many items to prepare for the watershed evaluation including:

- Identifying the growers located within the watershed
- Developing a BMP Field Survey
- Integrating maps to include all relevant information available for the watershed
- Collecting baseline samples at Walker Creek at Road 48 sampling location
- Sending a letter to growers located within the watershed informing them of the evaluation and what to expect.

Staff is currently giving out grower surveys developed by CURES to all growers within the watershed, completing visual field surveys, and updating the mapping of the watershed. (Task 1, Task 2, Task 3, Task 4, Task 5)

Further recommendations:

- Pesticide application inspections should be replaced by utilizing the pesticide pre-application site inspection process for evaluating water quality concerns. This method would be much more effective as an outreach component.
- Perform larger scale watershed evaluations for management practices, similar to the Walker Creek study now underway.

- Continue to provide outreach on a local and regional basis as requested.
- Consider changes to the contract that would include funding for services and supplies such as sampling, if required, and mass mailings of outreach materials. In the past, mailing costs have been covered through other programs and are not always available.

In the near future, the existing MOU will be under review by the signatories prior to the scheduled expiration date. If there are any recommended modifications, the contract should have the flexibility to make the ILP pilot program successful for all concerned.