

## Cooperative Monitoring Cost Scenarios

In order to look at financial impacts to agriculture resulting from proposed cooperative monitoring requirements, several scenarios are outlined below. All proposed costs are suggested only, as the Regional Board has no authority to assess fees. Once the Board approves a Monitoring and Reporting Program, it is the responsibility of all Dischargers, either individually or collectively, to comply with the requirements of the Board-approved Monitoring and Reporting Program.

Regional Board staff suggests that Dischargers form an Agricultural Monitoring Committee, made up of agricultural industry representatives from across the Region. The Committee would develop a dues schedule and select an organization to implement the Monitoring and Reporting Program. The organization selected by the Agricultural Monitoring Committee to implement the Cooperative Monitoring Program will be responsible for collecting dues and meeting all monitoring and reporting requirements. Although the Cooperative Monitoring Program may set individual grower costs based on any method it chooses, including consideration of administrative, staffing and laboratory costs, the Regional Board recommends a cost structure that sets dues in consideration of number of irrigated acres and type of discharge. The total cost of the cooperative program as proposed is estimated to be between \$920,000 and \$1,000,000 and includes approximately 25% of the total as a budget line item for follow-up monitoring. If all growers in the region choose instead to do individual monitoring, the combined total cost of the proposed individual monitoring program would be approximately \$17 million, primarily because of the expense of doing toxicity testing of storm water and irrigation water. Regional Board staff strongly recommends the Cooperative Monitoring Program as the most cost effective option and will assist the Agricultural Monitoring Committee in establishing the program.

Regional Board staff has developed budgeting tools for use by the Cooperative Program in estimating costs. Staff has used the budgeting tool to develop an example approach for distribution of costs among enrollees. This effort assumed 2000 enrollees, and used data from the Agricultural Census to estimate acreage breakdown, and cost information from several private and university laboratories to estimate analytical costs. Type of discharge, size of operation and potential impact to water quality were considered in developing a proposed cost structure. It was assumed that 50% of growers would fall into a "Type 1" or "high threat" category (for example, where tailwater was discharged to surface waters), 20% would fall into a "Type 2" or "medium threat" category, and 30% would fall into a "Type 3" or "low threat" category. These three categories represent one approach to determining dues, but the Agricultural Monitoring Committee may utilize any approach it chooses. This approach represents the highest cost estimate of the proposed Cooperative Program, and purposely does not account for possible cost savings that could result if the Cooperative Program incorporates data from other sources, or seeks out grant funding to reduce costs to participants. Through efficient use of all resources, the Cooperative Program may be able to significantly reduce costs of implementing the program and thus reduce costs identified in the scenarios below.

The basic dues structure in this example includes a base amount plus a per acre amount. Using the described assumptions, the following cost allocations generated enough funds for the program to be implemented in full:

Monitoring Registration Annual Dues	Base Amount	Addl Per Acre Amount
Type 1 (high threat)	\$200	\$2.00
Type 2 (medium threat)	\$125	\$1.25
Type 3 (low threat)	\$50	\$0.50

Following are several scenarios for different farming situations and how monitoring dues would be determined using this approach:

**Scenario 1**

**Type of Operation:** This farm is an intensively cultivated operation of 140 acres, growing multiple crops per year of lettuce and other “salad bowl” products. Sprinkler irrigation is used, and water regularly drains off the field into agricultural drainage ditches along the field’s edge. These ditches ultimately drain to the Salinas River. This operation would be considered a high threat to water quality, because of the direct drainage of irrigation water to surface waters of the State, and thus would be classified as a “Type 1” operation.

**Determination of Annual Monitoring Dues:**

$$\begin{array}{rcl}
 \text{Base Amount} & + & \text{Per Acre Amount} & = & \text{Annual Monitoring Dues} \\
 \$200 & + & (140 \text{ acres} * \$2.00/\text{acre}) & = & \$480/\text{year}
 \end{array}$$

**Scenario 2**

**Type of Operation:** This operator leases several different parcels of land in San Luis Obispo and Santa Barbara County. On two of the parcels, totaling 75 acres, conventional sprinkler irrigation is used and runoff is produced which drains ultimately to the Santa Maria River. On a third 250 acre parcel, the operator has installed drip irrigation, and no runoff is generated, except during stormwater runoff. In addition, the discharger has met all other “low threat” requirements identified in the Conditional Waiver, including having practices in place to protect stormwater. Because part of this operation is considered “high threat” (i.e. generates tailwater which drains to a surface water body), the Type 1 base amount is used, but the acreage under the “low threat” category is assessed at a lower per acre rate.

**Determination of Annual Monitoring Dues:**

$$\begin{array}{rcl} \text{Base Amount} & + & \text{Per Acre Amount} & = & \text{Annual Monitoring Dues} \\ \$200 & + & (75 \text{ acres} * \$2/\text{acre}) + (250 \text{ acres} * \$0.50) & = & \$475/\text{year} \end{array}$$

**Scenario 3**

**Type of Operation:** This operation is a 1000-acre farm which uses sprinklers to irrigate, but contains runoff in tailwater ponds. Though threat to surface water is limited to stormwater runoff, high nitrates in tailwater may be contributing to elevated nitrate levels in groundwater in the area. No cover crops are used, increasing threat of erosion during storm events. This operation is considered a “medium threat” to water quality and is classified as Type 2.

**Determination of Annual Monitoring Dues:**

$$\begin{array}{rcl} \text{Base Amount} & + & \text{Per Acre Amount} & = & \text{Annual Monitoring Dues} \\ \$125 & + & (1000 \text{ acres} * \$1.25/\text{acre}) & = & \$1375/\text{year} \end{array}$$

**Scenario 4**

**Type of Operation:** This operation is a 200-acre avocado farm. Trees are irrigated regularly but runoff is not generated. Runoff is limited to stormwater, and cover crops between the trees stabilize the soil during storm events. The operation meets all requirements for a low-threat discharge as described in the Conditional Waiver. This operation is considered a low threat “Type 3” operation.

**Determination of Annual Monitoring Dues:**

$$\begin{array}{rcl} \text{Base Amount} & + & \text{Per Acre Amount} & = & \text{Annual Monitoring Dues} \\ \$50 & + & (200 \text{ acres} * \$0.50/\text{acre}) & = & \$150/\text{year} \end{array}$$