

**ADMINISTRATIVE CIVIL LIABILITY R5-2012-0515  
ATTACHMENT G**

**CALCULATION OF PENALTY  
PER SWRCB WATER QUALITY ENFORCEMENT POLICY**

The proposed administrative civil liability was derived following the State Water Resources Control Board's Water Quality Enforcement Policy (the "Enforcement Policy") and using the "Penalty Calculation Methodology Worksheet, version date 6/24/2010" (the "Penalty Calculation Worksheet"; see attached). The proposed civil liability takes into account such factors as the Discharger's culpability, history of violations, ability to pay and continue in business, and other factors as justice may require.

Each factor of the Enforcement Policy and its corresponding score for the violation is presented below:

**Calculation of Penalty for Violation**

***For Violation 1 (19 May 2011)***

**Step1. Potential for Harm for Discharge Violations**

The *Potential for Harm for Discharge Violations* was calculated using the Penalty Calculation Worksheet (see attached). This step looks at the nature, circumstances, extent and gravity of the violation. It is the sum of the Harm or Potential Harm to Beneficial Uses; Physical, Chemical or Thermal Characteristics of the Discharge; and Susceptibility to Cleanup or Abatement.

*Harm or Potential Harm to Beneficial Uses: 3*

*Discussion:* The Discharger was given the score of 3 (moderate). A moderate score was given because the discharge impacts were observed, or reasonably expected to have a moderate impact to beneficial uses in the river and/or down-gradient water users, but without appreciable acute or chronic effects.

*Physical, Chemical, Biological or Thermal Characteristics of the Discharge: 2*

*Discussion:* The Discharger was given the score of 2 (moderate risk). A moderate score was given as the discharge appeared to pose a moderate risk or threat to potential receptors. The discharged material has some level of toxicity or poses a moderate level of concern regarding receptor protection.

*Susceptibility to Cleanup or Abatement: 1*

*Discussion:* The Discharger was given the score of 1 (< 50% of the discharge is susceptible to cleanup or abatement), which is summed with the other factors to give the

final 'Potential for Harm' factor below. As the discharge has proceeded down stream less than 50% of the discharge is susceptible to cleanup.

Summing the scores given for the above factors the 'Potential for Harm' factor score is found to be **6** (Harm or Potential Harm to Beneficial Uses score of 3 + Physical, Chemical, Biological or Thermal Characteristics of the Discharge score of 2 + Susceptibility to Cleanup or Abatement score of 1).

### **Step 2. Assessment for Discharge Violations**

At the time of the 19 May 2011 inspection, staff followed the discharge from the cropland into the Amaral Line. Staff measured the discharge flow at Amaral Line outfall into the San Joaquin River. During follow-up inspections, staff discovered that the underground portion of the line serviced multiple property supply and drainages connected to the line making it difficult to determine what percentage of the flow would be attributable to the Discharger. The initial liability will therefore be assessed based on a per day calculation.

Using Table 2 of the in the Enforcement Policy, the per day factor for this violation was determined to be 0.22. This factor was determined using Table 2 with the appropriate 'Deviation from Requirement' and the 'Potential for Harm' factor generated above. This was the first growing season that Del Mar Farms farmed these parcels. With this event being one of the early season irrigations, they would have had minimal historical experience with the irrigation timing. However, Del Mar Farms is an experienced grower, and as a current coalition member has knowledge of water quality issues and management practices. Therefore the 'Deviation from Requirement' factor is major.

### **Step 3. Per Day Assessment for Non-Discharge Violations**

This step is not applicable.

### **Initial Liability for the 19 May 2011 Discharge**

The Discharger has obtained regulatory coverage for their waste discharges under the Conditional Waiver by enrolling in a Coalition. Discharging sediment has violated the conditions of the Conditional Waiver, which are referenced above.

Violations of the Conditional Waiver are punishable under Water Code section 13350 by civil liability in an amount which shall not exceed five thousand dollars (\$5,000) for each day in which the violation occurs.

This was the first time violation for Discharger, and Del Mar Farms had minimal prior experience irrigating these parcel, so the \$5,000/day factor was used. Applying the per-day factor to the number of days of violation, calculation of the initial liability total is \$1,100 (0.22 per day factor x 1 day of violation x \$5,000 per day penalty).

#### **Step 4. Adjustment Factors**

a) *Culpability: 1*

*Discussion:* The Discharger was given the score of 1, which does not increase or decrease the initial liability. This was based on the fact that the Discharger did not have previous irrigation experience with these parcels, which may have lowered the culpability, it would be reasonable to assume they would have monitored the irrigations more closely for that same reason. Therefore, no increase or decrease in culpability was assigned.

b) *Cleanup and Cooperation: 1*

*Discussion:* During the 1 June 2011 discussion with the Discharger, they stated that they furrow irrigated these parcel the first season, but were going to install a drip system. The drip system would be anticipated to mitigate future sediment-laden irrigation. They also explained that the installation of the drip system was something that they had already planned before the discharge event. Therefore, no adjustment increase or decrease is assigned.

c) *History of Violations: 1*

*Discussion:* The Discharger was given the score of 1, as this was the Discharger's first offense.

The Base Initial Liability for the 19 May 2011 Discharge is **\$1,100** after applying the adjustment factors from step 4 to the Initial determined in Step 3;  $\$1,100 \times (1)(1)(1)$ .

#### **For Violation 2 (6 July 2011)**

##### **Step1. Potential for Harm for Discharge Violations**

The Potential for Harm for Discharge Violations was calculated using the Penalty Calculation Worksheet (see attached). This steps looks at the nature, circumstances, extent and gravity of the violation.

*Harm or Potential Harm to Beneficial Uses: 3*

*Discussion:* The Discharger was given the score of 3 (moderate). A moderate score was given because the discharge impacts were observed or reasonably expected to have a moderate impact to beneficial uses in the river and/or down-gradient water users, but without appreciable acute or chronic effects.

*Physical, Chemical, Biological or Thermal Characteristics of the Discharge: 2*

*Discussion:* The Discharger was given the score of 2 (moderate risk). A moderate score was given as the discharge appeared to pose a moderate risk or threat to potential receptors. The discharged material has some level of toxicity or poses a moderate level of concern regarding receptor protection.

Susceptibility to Cleanup or Abatement: 1

*Discussion:* The Discharger was given the score of 1 (< 50% of the discharge is susceptible to cleanup or abatement), which is summed with the other factors to give the final 'Potential for Harm' factor below. As the discharge has proceeded downstream less than 50% of the discharge is susceptible to cleanup.

Summing the scores given for the above factors the 'Potential for Harm' factor score is found to be **6** (Harm or Potential Harm to Beneficial Uses score of 3 + Physical, Chemical, Biological or Thermal Characteristics of the Discharge score of 2 + Susceptibility to Cleanup or Abatement score of 1).

## **Step 2. Assessment for Discharge Violations**

A sediment-laden discharge was flowing from multiple furrow irrigated parcels owned by multiple property owners into the Amaral Line. All of the parcels were operated and farmed by Del Mar Farms. The Amaral Line serves as an irrigation supply line as well as a field drainage line. The Amaral Line is a tributary to the San Joaquin River.

Using Table 2 of the in the Enforcement Policy, the per day factor for this violation was determined to be 0.22. This factor was determined using Table 2 with the appropriate 'Deviation from Requirement' and the 'Potential for Harm' factor generated above. Although this was the first irrigation season for Del Mar Farms with these particular parcels, staff had met with Del Mar Farms owner Jon Maring prior to this irrigation (1 June 2011) to discuss the 19 May 2011 discharge. Del Mar Farms had prior notification and understanding regarding sediment-laden discharge issues. In addition, staff's inspection was initiated by a citizen complaint regarding sediment-laden irrigation supply water in the Amaral Line. Therefore the 'Deviation from Requirement' factor is increased to major.

## **Step 3. Per Day Assessment for Non-Discharge Violations**

This step is not applicable.

## **Initial Liability for the 6 July 2011 Discharge**

The Discharger has obtained regulatory coverage for their waste discharges under the Conditional Waiver by enrolling in a Coalition. The discharging of sediment has violated the conditions of the Conditional Waiver, which are referenced above. Violations of the Conditional Waiver are punishable under Water Code section 13350 by civil liability in

an amount up to ten dollars (\$10.00) per gallon. To determine the flow rate, the cross section of field drain ditch and velocity were measured at the time of the inspection. The velocity and cross section measurements were then reduced to allow for friction of the ditch surfaces and cross section variability. The duration only includes the actual time on site that staff observed the flow. The adjusted flow rate is 34,000 gal/hr x 3.5 hr = 119,000 gallons.

The State Water Resources Control Board Water Quality Enforcement Policy (effective May 20, 2010) describes that for high volume spills, a maximum amount of \$2.00 per gallon factor should be used. Applying the \$2.00 per-gallon factor to the assessment factors described above, the calculation of the initial liability totals **\$52,360** (duration based on staff's observations during the 3.5 hour time inspection staff was on site).

#### **Step 4. Adjustment Factors**

*a) Culpability: 1.1*

Discussion: The Discharger was given the score of 1.1, based on that Del Mar Farms had prior knowledge and discussions with Water Board staff regarding sediment discharges from irrigated cropland specifically discussing the 19 May 2011 discharge, and staff receiving a nuisance complaint from a down-gradient water user.

*b) Cleanup and Cooperation: 1.1*

Discussion: Del Mar Farms owner Jon Maring had indicated to staff that their mitigation plan for the remainder of this irrigation season was to apply polyacrylamide (PAM) to mitigate sediment-laden discharges. The plan was either not implemented fully or was in-effective increasing the score on a 0.5 to 1.5 scale to 1.1.

*c) History of Violations: .1.1*

Discussion: The Discharger was given the score of 1.1, as this was the Discharger's second offense and had prior knowledge of sediment issues, (the minimum multiplier for a second offense is 1.1).

The Base Initial Liability for the 6 July 2011 Discharge is **\$69,691** after applying the adjustment factors from step 4 to the Initial determined in Step 3, \$52,360 x (1.1)(1.1)(1.1).

#### **For Violation 3 (19 July 2011)**

#### **Step1. Potential for Harm for Discharge Violations**

The Potential for Harm for Discharge Violations was calculated using the Penalty Calculation Worksheet (see attached). This steps looks at the nature, circumstances, extent and gravity of the violation.

*Harm or Potential Harm to Beneficial Uses: 3*

*Discussion:* The Discharger was given the score of 3 (moderate). A moderate score was given because the discharge impacts were observed or reasonably expected to have a moderate impact to beneficial uses in the river and/or down-gradient water users, but without appreciable acute or chronic effects.

*Physical, Chemical, Biological or Thermal Characteristics of the Discharge: 2*

*Discussion:* The Discharger was given the score of 2(moderate risk).A moderate score was given as the discharge appeared to pose a moderate risk or threat to potential receptors. The discharged material has some level of toxicity or poses a moderate level of concern regarding receptor protection.

*Susceptibility to Cleanup or Abatement: 1*

*Discussion:* The Discharger was given the score of 1 (< 50% of the discharge is susceptible to cleanup or abatement), which is summed with the other factors to give the final 'Potential for Harm' factor below. As the discharge has proceeded downstream, less than 50% of the discharge is susceptible to cleanup.

Summing the scores given for the above factors the 'Potential for Harm' factor score is found to be **6** (Harm or Potential Harm to Beneficial Uses score of 3 + Physical, Chemical, Biological or Thermal Characteristics of the Discharge score of 2 + Susceptibility to Cleanup or Abatement score of 1).

**Step 2. Assessment for Discharge Violations**

The discharge was from the same parcels and same nature of circumstances as the 19 May 2011 discharge. Sediment-laden drainage from furrow irrigated parcels was discharging into the Amaral Line. The parcels were operated and farmed by Del Mar Farms. The Amaral Line serves as an irrigation supply as well as a field drainage line. The Amaral Line is a tributary to the San Joaquin River.

Using Table 2 of the in the Enforcement Policy, the per day factor for this violation was determined to be 0.22. This factor was determined using Table 2 with the appropriate 'Deviation from Requirement' and the 'Potential for Harm' factor generated above. Because Del Mar Farms had prior knowledge and irrigation experience (this was the second discharge from these parcels, so fore-knowledge of the issues and prior experience irrigating the field would be expected), the "Deviation from requirement" factor was increased to major.

### **Step 3. Per Day Assessment for Non-Discharge Violations**

This step is not applicable.

### **Initial Liability for the 19 July 2011 Discharge**

The Discharger has obtained regulatory coverage for their waste discharges under the Conditional Waiver by enrolling in a Coalition. Discharging sediment has violated the conditions of the Conditional Waiver, which are referenced above.

Violations of the Conditional Waiver are punishable under Water Code section 13350 by civil liability in an amount up to ten dollars (\$10.00) per gallon. A flow rate of 22,000 gallons per hour x 2.2 hours = 48,400 gallons.

The State Water Resources Control Board Water Quality Enforcement Policy (effective May 20, 2010) describes that for high volume spills, a maximum amount of \$2.00 per gallon factor should be used. Applying the \$2.00 per-gallon assessment factors described above, the calculation of the initial liability totals \$21,296 (duration based on staff's observations during the 2.2 hour time inspection staff was on site).

### **Step 4. Adjustment Factors**

a) Culpability: 1.2

Discussion: The Discharger was given the score of 1.2, based on that Del Mar Farms had prior knowledge and discussions with Water Board staff regarding sediment discharges, had 2 prior discharges including from these same parcels (19 May 2011 discharge). The discharge caused, all or in part, a water quality objective violation as well as a nuisance condition to down-gradient water users.

b) Cleanup and Cooperation: 1.2

Discussion: Del Mar Farms owner Jon Maring explained that their mitigation plan for the remainder of this irrigation season was to apply polyacrylamide (PAM) to mitigate sediment-laden discharges. The plan was either not implemented fully or was in-effective. This was the second sediment-laden discharge from this property.

c) History of Violations: .1.2

Discussion: The Discharger was given the score of 1.2, as this was the Discharger's third offense, (the minimum multiplier for a second offense is 1.1).

The Base Initial Liability for the 19 July 2011 Discharge is **\$36,800** after applying the adjustment factors from step 4 to the Initial determined in Step 3, \$21,296x (1.2)(1.2)(1.2).

#### **Step 5. Determination of Total Base Liability Amount**

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount determined in Step 3.

- a) *Total Base Liability Amount:* **\$107,591** (19 May 2011 Base Liability \$1,100 plus the 6 July 2011 Base Liability \$69,691 plus the 19 July 2011 Base Liability \$36,800)

### **BASE LIABILITY AND FACTORS APPLIED TO THE VIOLATION**

The Base Liability Amount for the Violation is **\$107,591**.

The following factors apply to the Base Liability Amount for the violation.

#### **Step 6. Ability to Pay and Continue in Business**

- a) *Adjusted Base Liability Amount:* **\$107,591**

*Discussion:* As per the Enforcement Policy, “[t]he ability of a discharger to pay an ACL is determined by its revenues and assets.” Board staff contends that the Discharger has the ability to pay based on 1) the Discharger’s own / operate the property, a significant asset, 2) the Discharger has an agricultural operation on the property, and ongoing business that generates revenues.

Based on the reasons discussed above, staff is not recommending a reduction to the Combined Total Base Liability Amount based on the Discharger’s inability to pay.

#### **Step 7. Other Factors as Justice May Require**

- a) *Base Liability Amount:* \$107,591 + \$15,600 (staff costs) = **\$123,191**.
- b) *Discussion:* The Central Valley Water Board has incurred \$15,600 in staff costs associated with the investigation and enforcement of the violation alleged herein. This represents approximately 104 hours of staff time devoted to investigating and reporting the violations, and drafting this memo at \$150 an hour. In accordance with the Enforcement Policy, this amount is added to the Base Liability Amount.

## Step 8. Economic Benefit

a) *Estimated Economic Benefit:* **\$46,000**

Discussion: There are numerous management systems available. Del Mar Farms indicated that they had plans to install an underground drip system in the parcels described in this Order. The estimated cost of an underground drip system is approximately \$2,000 per acre. Del Mar Farms, in conjunction with the parcel owners applied for and received a Proposition 84, 50 % matching fund Grant from the State Water Resource Control Board. Del Mar Farms cost share was approximately \$1,000 per acre. The acreage of the O'Neill parcels (APNs 027-018-055 and 049-014-001) is 48.6 acres. Applying a factor of 95% to allow for field roads and irrigation ditches, the estimated net crop acres is 46 acres. At \$1,000 per acre Discharger cost x 46 acres is an Economic Benefit of \$46,000 for not having installed the drip system prior to the 2011 crop season.

## Step 9. Maximum and Minimum Liability Amounts

a) *Minimum Liability Amount:* **\$50,600**

*Discussion:* The Enforcement Policy requires that the minimum liability amount imposed not be below the economic benefit plus ten percent. As discussed above, the Central Valley Water Board Prosecution Team's estimate of the Discharger's economic benefit obtained from the violations cited in this memo is \$46,000. Therefore \$46,000 plus 10% results in a Minimum Liability of \$50,600.

b) *Maximum Liability Amount:* **\$1,699,550**

*Discussion:* Pursuant to CWC section 13350, the maximum civil liability for violations of the Irrigated Lands Conditional Waiver is either \$5,000 per violation per day or \$10 per gallon of waste discharged. A discharge volume estimate is not available for 19 May, so the maximum liability for this date is \$5,000. Discharge volume estimates are available for 6 and 19 July; these estimates are 120,187 gallons and 49,269 gallons, respectively. Based on the maximum per day liability for 19 May, and the maximum per gallon liabilities for 6 and 19 July, the Dischargers accrued a maximum civil liability of one million six hundred ninety nine thousand five hundred and sixty dollars (\$1,699,550).

## Step 10. Final Liability Amount

Based on the above analysis, and consistent with the Enforcement Policy, the final liability amount proposed for the Discharge of Waste in violation of the Conditional Waiver is **\$123,191**. This amount is a sum of the 'Base Liability' and 'Staff Costs'

and takes into account the multipliers applied in the 'Ability to Pay and Continue Business' factor as well as 'Other Factors as Justice May Require'. Attached to this memo is a spreadsheet that demonstrates the use of the penalty calculation methodology.

For ease of reference the Enforcement Policy adjustment factors used in this civil liability calculation are tabulated below:

Adjustment Factors	Range	Factors Used		
		May 19	July 6	July 19
Harm or Potential Harm to Beneficial Uses	0 to 5	3	3	3
Physical, Chemical, Biological, or Thermal Characteristic of the Discharge	0 to 4	2	2	2
Susceptibility to Cleanup or Abatement	0 or 1	1	1	1
<b>Step 1 Final Score</b>	0 to 10	6	6	6
Deviation from the Requirement	Minor, Moderate, Major	Major	Major	Major
<b>Step 2 Per Gallon/Day Factor</b>	0 to 10	0.22	0.22	0.22
Gallons	Flow rate x duration	NA	120,186	49,269
Dollars per gl	0 to \$10	NA	2.00**	2.00**
Per Day Max	0 to \$5,000	\$5,000	NA	NA
<b>Initial Amount of the ACL</b>	--	\$1,100	\$52,360	\$21,296
<b>Step 3 Per Day Non Violation</b>	--	NA	NA	NA
<b>Step 4 Culpability</b>	0.5 to 1.5	1	1.1	1.2
<b>Step 4 Cleanup and Cooperation</b>	0.75 to 1.5	1	1.1	1.2
<b>Step 4 History of Violations</b>	Min. 1.1 for prior violations	1	1.1	1.2
<b>Step 4 Per Event Base Liability</b>	Initial x Step 4 Factors	\$1,100	\$69,691	\$36,800
<b>Step 5 Total Base Liability</b>	Sum of Each Event Base Liability	\$107,591		
<b>Step 6 Ability to Pay</b>	Based on financial information	1		
<b>Step 7 Other Factors</b>	--	1		
<b>Step 7 Staff Costs</b>	--	\$15,600		
<b>Step 8 Economic Benefit</b>	--	\$46,000		
<b>Step 9 Minimum Liability</b>	Step 8 plus 10%	\$50,600		
<b>Step 9 Maximum Liability</b>	--	\$1,699,550		
<b>Step 10 Final Liability Amount (Step 5 + Step 7)</b>	--	\$123,191		