Attachment A
Calculation of Penalties

The State Water Resources Control Board's Water Quality Enforcement Policy ("Enforcement Policy") establishes a methodology for determining administrative civil liability by addressing the factors that must be considered under California Water Code (Water Code) section 13385(e). Each factor of the nine-step approach is discussed below, as is the basis for assessing the corresponding score. The Enforcement Policy can be found at: http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf

The proposed administrative civil liability amount is based on the use of that methodology.

Step 1. Potential for Harm (8)

The Potential for Harm for the discharge is eight (**8**). The potential for harm is the sum of all factors for a) the potential for harm to beneficial uses, b) the physical, chemical, biological or thermal characteristics of the discharge, and c) the susceptibility for cleanup or abatement (<50%).

a. Specific Factor: Potential Harm to Beneficial Uses

Category: **Major (5)**

Staff observed that the water released from the bladder started out with a dispersed flow path that overtopped and eroded a two-foot berm that surrounded the water bladder, and then traveled 30 to 40 feet as sheet flow, over forest soils, before discharging to an unnamed tributary to the Upper Main Eel River. The discharge posed a high threat of harm to beneficial uses where the release of approximately 50,000 gallons of water that mixed with sediment was discharged into a confined channel located on steep slopes ranging from 50-80%. The discharge subsequently formed a debris torrent that traveled for a distance of approximately 2000 feet, and along the way, eroded the bed and banks of the unnamed tributary stream; dislodged soil, instream boulders, cobbles and woody materials; radically altered, if not eliminated, all habitats in the affected Class II[1] stream channel before discharging to the Upper Main Eel River (Eel River). The discharge appeared to remove most of the vegetation within the stream channel bed and banks, for a distance of over 2000 feet, leaving clear evidence of a scour line.

Fine and coarse materials from the channel bed appeared to have been scoured out by the surge (kinetic energy) of the discharge. The volume of the discharge transported down the stream scoured the channel bottom to an average depth of 1-

[1] California Forest Practice Rules define a Class II watercourse as 1) a watercourse capable of supporting non-fish aquatic species, or 2) a watercourse within 1000 feet of a watercourse that seasonally or always has fish present. The definition excludes Class III watercourses from the exception.

4 feet from downstream of the water bladder to the confluence with the Eel River. Regional Water Board staff observed broken off vegetation and ferns that had been completely torn away except for the root masses. Staff observed the unnamed tributary had been scoured to bedrock on the bottom of the stream and on side slopes in the stream in many locations. Staff observed boulders and debris that had been carried and deposited onto roads and into inside ditches. At the M8 Road, staff observed that sediment and debris had plugged the culvert and overtopped the road and entered the stream channel again. Staff saw deposits of large boulders 2-3 feet in diameter where the stream met the road. Staff also observed that a portion of the flow had diverted along the road surface and inside ditch and discharged into an adjacent stream channel. At the point the unnamed tributary feeds to the Eel River, Regional Water Board staff observed a significant amount of sediment covering the soil and plants, leaving deposits of sediment visible as a trail into the Eel River.

The discharge and the subsequent scouring and erosion violated water quality objectives in the unnamed tributary and likely violated these objectives in the Eel River temporarily. The Water Quality Control Plan for the North Coast Region (Basin Plan) contains water quality objectives for all waters within the Region. The objectives identify constituents that are of concern when discharged into the aquatic environment, including the following:

> Suspended Material
> Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
>
> Sediment
> The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
>
> Turbidity
> Turbidity shall not be increased more than 20% above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waivers thereof.

The Basin Plan also designates potential and existing beneficial uses to each watershed. According to the Basin Plan, the existing and potential beneficial uses of the Lake Pillsbury Hydrologic Subarea of the Upper Main Eel River Hydrologic Area include: Municipal & Domestic Supply; Agricultural Supply; Industrial Service Supply; Industrial Process Supply; Ground Water Recharge; Freshwater Replenishment; Navigation; Hydropower Generation; Water Contact Recreation; Non-Contact Water Recreation; Commercial & Sport Fishing; Warm Freshwater Habitat; Cold Freshwater Habitat; Wildlife Habitat; Rare, Threatened or Endangered Species; Migration of Aquatic Organisms; Spawning, Reproduction and/or Early Development; and Aquaculture. Of these beneficial uses, all except Navigation and

Hydropower Generation are likely to have been impacted during and following the discharge event.

This discharge reached the Upper Main Eel River watershed, which is a Class II stream and in the California Coast Evolutionarily Significant Unit (ESU) for Chinook Salmon and the Northern California Distinct Population Segment (DPS) for Steelhead Trout. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA-NMFS) designated the ESU and DPS to protect Chinook Salmon, and Steelhead Trout, which are both listed as Threatened species under the United States Endangered Species Act.

The period of the initial impacts is estimated to have lasted at least 24 hours.

The Van Arsdale fishery station observed and reported an increase in instream turbidity in the Eel River during this time period that lasted about a day and half, and reported that a high rate of outmigration occurred coincident to this increase in turbidity. A turbidity plume can potentially affect aquatic life through disruption of the following: 1) feeding behavior, 2) predator avoidance 3) cover-seeking responses, 4) respiration, and 5) migration. At the time this discharge occurred, Chinook Salmon young of the year were rearing in the Eel River.

In sum, the discharge adversely impacted the beneficial uses where the scouring of approximately 2,000 feet of the unnamed tributary occurred. Impacts to the unnamed tributary, as described above, likely altered the habitat such that the beneficial uses were adversely impacted. In addition, water quality objectives were likely violated in both the unnamed tributary and the Eel River. A factor of (5) five is appropriate where the discharge posed a high threat to beneficial uses (e.g., significant impacts to aquatic life and habitat).

b. Physical, Chemical, Biological or Thermal Characteristics of the Discharge

Category: **Moderate (2)**

The discharge of water mixed with sediment initially discharged to the unnamed tributary. Sediment has physical characteristics that pose a moderate physical and biological risk or threat to aquatic life and instream habitat, both in the water column and deposited on the stream channel bottom. Sediment in the water column can cause elevated turbidity levels leading to altered light regimes which can directly impact primary productivity, species distribution, behavior, feeding, reproduction, and survival of aquatic biota.

Suspended sediment in the water column can cause other direct effects to aquatic species, including physical abrasion, clogging of filtration and respiratory organs, and, at very high concentrations, mortality.

Increased sedimentation can smother macroinvertebrates, incubating embryos and emergent fry, can fill pools, and can seal gravel and decrease interstitial water flow and dissolved oxygen concentrations.

The Prosecution Team assessed a factor of two (2) where the physical and biological characteristics of sediment-laden water posed a moderate risk to the aquatic habitat and species.

c. Susceptibility to Cleanup or Abatement:

Category: **<50% Susceptible to Cleanup or Abatement**

The earthen materials discharged from the water bladder failure were dispersed and not susceptible to cleanup. Therefore, a factor of 1 was assessed.

Step 2. Assessments for Discharge Violation

In total, this discharge represents the approximately 50,000 gallons of sediment-laden water discharged into the unnamed tributary.

The deviation from requirements is major, where an unauthorized discharge to a water of the U.S. occurred in violation of the Clean Water Act which prohibits the discharge of pollutants to waters of the U.S. without a permit.

Per-Gallon Determination

The Potential for harm is eight (8). This is determined by the sum of the factors for a) the potential for harm to beneficial uses (5 – Major); b) the physical, chemical, biological or thermal characteristics of the discharge (2 – Moderate); and the susceptibility for cleanup or abatement is < 50 %, so a value of (1) applies. With the potential of harm factor of 8 and a major deviation from requirement, according to Table 1 on page 14 of the Enforcement policy, a factor of 0.6 per gallon is derived.

Based on these parameters, liability is assessed on a discharge of 50,000 gallons. Therefore, the initial amount of liability based on the volume discharged is:

(50,000 - 1,000 = 49,000 gallons) x (0.6 per gallon factor) x ($10 per gallon) = **$294,000**

Per Day Determination

Based on the facts in this case, an assessment for one day of discharge is appropriate. The water bladder failed all at once, discharging sediment, water and debris in a one-day event. When applying a deviation from requirement of "major" to Table 2 on page 15 of the Enforcement Policy, a 0.6 per day factor is derived.

The initial liability amount for one day of discharge is $10,000 x 0.6 = **$6,000**

Step 3. Assessment for Non-Discharge Violations

No penalties are being assessed at this time for non-discharge violations.

Step 4. Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the discharger's culpability, efforts to clean up and/or cooperate with regulatory authority, and the discharger's compliance history.

a. Culpability (**1.25**)

Higher liabilities should result from intentional and negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher multiplier for negligent behavior. The Dischargers were assessed a multiplier value of (**1.25**) because Mr. Daniel Franklin, as the operator of the Site, should have been aware of the potential for the bladder to fail if overfilled, yet Mr. Daniel Franklin neglected to adequately supervise operations to sufficiently monitor the volume of the bladder as it was filled and ensure the intake valve was closed. The bladder's label indicated the bladder was intended to store fuels for military use and not to be used for long term use. "Do not overfill" was also stamped on the bladder. Ms. Olive Franklin as the trustee has the duty to take reasonable steps to take and keep control of and preserve trust property.[2] A reasonable and prudent person would have sought and obtained the necessary permits and installed the appropriate infrastructure to store diverted water. The bladder was clearly labeled to notify the user that the bladder was not intended to store water. Yet, the bladder was used to store water. This was not the first time Mr. Daniel Franklin had used the bladder to store water. In conversations with Regional Water Board staff, Mr. Daniel Franklin mentioned prior uses for the bladder, including for irrigation and firefighting. At the minimum, responsible operators should have monitored the volume of the bladder as it was being filled and turned off the intake line or installed a valve that automatically shuts the intake line off when the bladder is at capacity.

A 1.25 is a reasonable assessment of culpability where the Dischargers' negligence caused 50,000 gallons of sediment-laden water to discharge to the unnamed tributary and the Eel River.

b. Cleanup and Cooperation (**1**)

This factor reflects the extent to which a discharger voluntarily cooperated in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 can be used, with a higher multiplier when there is a lack of cooperation. In this case, the Dischargers have been assessed a neutral value of **1** due to their cooperation, including reporting the discharge incident and accepting

[2] See Cal. Prob. Code § 16006.

responsibility for the bladder failure. No voluntary cleanup or restoration measures were taken immediately after the discharge. After being prompted by Regional Water Board staff in 2014, the Dischargers took steps to identify whether it was necessary to take restoration measures. Here, cleanup was not obligatory because the nature and extent of the damage to the unnamed tributary was not conducive to restoration or remediation. On balance, a factor of 1.0 was assessed.

c. History of Violations (**1**)

This factor is to be used when there is a history of repeat violations. A minimum multiplier of 1.0 can be used, and is to be increased as merited by history of violations. In this case, because the Dischargers have no prior known history of non-compliance, the minimum factor of **1** is used.

Step 5. Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors (Step 4) to the Initial Liability Amount (Step 2).

(Initial liability) x (culpability factor) x (cleanup and cooperation factor) x (history of violations factor) = Total base liability amount

Discharge Violation
$294,000 x 1.25 x 1 x 1 = $367,500

One Day of Discharge
$6,000 x 1.25 x 1 x 1 = $7,500

Total Base Liability
$367,500 + $7,500 = **$375,000**

Step 6. Ability to Pay and to Continue in Business

The Enforcement Policy provides that if the Regional Water Board has sufficient financial information to assess the Discharger's ability to pay the Total Base Liability, or to assess the effect of the Total Base Liability on the violator's ability to continue in business, then the Total Base Liability amount may be adjusted downward.

Based on a preliminary asset search of the public records, the Franklin Trust has assets within the United States consisting of two properties (17777 Eel River Road in Potter Valley and 27860 Poppy Drive in Willits). The last full market sale of the 17777 Eel River property was for $255,000 in 2002 and $135,000 for the 27860 Poppy Drive property. This ability to pay analysis does not capture any income stream derived from the cultivation of marijuana on the Dischargers' property. Based on aerial imagery, marijuana has been cultivated on the Dischargers' property for at least four years, including in 2015. Regional Water Board staff expects that

the Dischargers generated revenue from this activity and have developed conservative estimates based on the wholesale price for the area.

Based on the information available in the public record, the Franklin Trust has assets of approximately $390,000 to pay the total base liability amount. This value is based on the sum of the last full market sale of the two properties owned by the trust. The Prosecution Team has met its initial burden in demonstrating the Dischargers' ability to pay the proposed liability.

Step 7. Other Factors as Justice May Require

Costs of Investigation and Enforcement:

The costs of investigation and enforcement are other factors as justice may require, and should be added to the liability amount.

As of the date of drafting this methodology, Prosecution Staff has incurred costs of investigation and enforcement of at least $6,946.68. This is a conservative amount based on 73 hours of staff time invested, including 8 for site inspections and interviews, and 65 for data analysis, writing the report and calculating penalties at $95.16 per hour. **Staff Costs: $6,947.**

Total Base Liability Amount: $381,947.

Given the massive damage to the unnamed tributary from the Dischargers' failure to responsibly manage growing operations in compliance with water quality laws, the Prosecution Team determined that the penalty derived in applying the methodology is fair and an appropriate deterrent against similar growing operations that choose to operate irresponsibly. No reduction in the proposed liability is seen as justified.

Step 8. Economic Benefit

Pursuant to Water Code section 13385, subdivision (e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit, if any, derived from the acts that constitute the violation.

Any estimate of economic benefit is not able to capture the fact that the Regional Water Board would not have issued waste discharge requirements for an uncontrolled discharge of a large volume of water such as occurred due to the Dischargers' actions. Potentially, to appropriately divert and store water in compliance with the law, the Dischargers would have needed to install an estimated ten (10) 5000-gallon storage tanks. The installation of the tanks would require a project plan including survey and design of the plan, amounting to approximately $51,500. The annual maintenance cost for the storage tanks and associated pumps and piping is estimated at $1,000 per year. The economic benefit also includes the cost of: a lake and streambed alteration permit from California Department of Fish and Wildlife (DFW) (with $250.00 permit fee), a diversion and use permit from the State Water Resources Control Board Division of Water Rights and the five-year

renewal fee (with $250 registration fee and $100 renewal fee), and permits from Mendocino County. In addition, the Dischargers can be required to pay the California Environmental Quality Act costs of addressing the permit application to DFW, which starts with a $1500.00 deposit and can require additional deposits. To calculate the economic benefit of non-compliance we have our in house economist use the BEN model that was developed and is recommend by the US Environmental Protection Agency. Based upon the use of the BEN model with a set of estimated costs associated with potential avoided permitting requirements the Prosecution Team has estimated the economic benefit of non-compliance at $74,017.

This estimated economic benefit of noncompliance does not take into account any financial gain derived from the competitive advantage of operating without complying with the law. It is unlikely that the Dischargers could have obtained the necessary permits and authorization to legally cultivate the quantity of marijuana supported by the unauthorized water bladder and the profits from that activity should be considered part of the competitive advantage derived from these violations.

The Enforcement Policy requires that the adjusted Total Base Liability Amount be at least 10% higher than the economic benefit amount of $74,017, or $81,419. The adjusted combined Total Base Liability Amount of $381,947 is more than the economic benefit of noncompliance plus 10%. Therefore no liability adjustment is required.

Step 9. Maximum and Minimum Liability Amounts

The maximum and minimum amounts for the violations are shown below. The Enforcement Policy requires that the minimum liability amount imposed not be below the economic benefit plus ten percent. The maximum administrative liability amount is the maximum allowed by Water Code section 13385: (1) $10,000 for each day of violation, and (2) on a per gallon basis in an amount not to exceed $10 per gallon of waste discharged but not cleaned up in excess of 1,000 gallons. Though there is no statutory minimum, the Enforcement Policy requires 10% more than the economic benefit. The proposed liability falls within the maximum and minimum amounts.

a. Maximum Liability Amount: **$500,000**

   [49,000 gallons x $10.00/gallon] + $10,000/day = $500,000

b. Minimum Liability Amount: **$81,419.**

Step 10. Final Administrative Civil Liability Amount

Based on the foregoing analysis, and consistent with the Enforcement Policy, the proposed administrative civil liability is **$381,947**.