AGENDA TRANSMITTAL FORM

	<u>ISMITTAL FORM</u>	Regular Agenda Consent Agenda
To: <u>Board of Supervisors</u>	Blue Slip Closed Session	
Date: March 9, 2016		Meeting Date Requested:
From: Todd Riebe	3/22/2016	
(Department Head - please type)) ₀	
Department Head Signature	<u>de</u>	
Agenda Title: Public Safety & Rehabilitation Act of 2016		
Summary: (Provide detailed summary of the purpose of this item; attach Presentation on the Public Safety & Rehabilitation Act of 2016 l Board vote in opposition to the proposed initiative.	additional page if necessary) by Sheriff Martin Ryan and District	Attorney Todd Riebe. Request for
Recommendation/Requested Action: To oppose the Public Safety & Rehabilitation Act of 2016 Fiscal Impacts (attach budget transfer form if appropriate) None at this time.	Staffing Impacts	
Is a 4/5ths vote required? Yes □ No ☒	Contract Attached:	Yes No N/A X
Committee Review? N/A	Resolution Attached: Ordinance Attached	Yes
Name	Comments:	
Committee Recommendation:		
Request Reviewed by:		<u> </u>
Chairman C	Counsel $\underline{\mathcal{EC}}$	
Auditor JOR	GSA Director Hop	
CAO F	Risk Management	
Distribution Instructions: (Inter-Departmental Only, the requesting Departmental Only)	rtment is responsible for distribution outs	ide County Departments)
Please send any paperwork to Julie Tonn in DA's Office.	Anditor	
FOR CLEF	RK USE ONLY	
Meeting Date 3-22-1(0 Time		Item# 8
Board Action: Approved Yes No Unanimous Vote Ayes: Resolution O	e: YesNo Ordinance	Other:
	Ordinance	
Absent: Comments:		satism(a) taken and entered into the official
	certify this is a true and correct copy of a of the Amador County Board of Supervis	action(s) taken and entered into the official ors.
Department	T.	
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AGENDA TRANSMITTAL FORM

#3

	AGENDA	<u>A I KANSINI</u>	ITTAL FURIN	Regular Agenda
То: <u>Воа</u>	rd of Supervisors			Consent Agenda Blue Slip
Date: March 1	6, 2016			Closed Session
				Meeting Date Requested:
From: Susan C.		Pr	none Ext. X 380	<u>3-22-16</u>
,	Department Head - please type)	3 2.		
Department He	ead Signature Musan	Trisal	lva)	
Agenda Title:	an en la Comunication de la com			
<u>Pla</u>	anning Dept Presentation and possible a		an an anna an amh an an Aontaige ann a taoigt airte	a Mitigation Measure 61.1.1 Monitoring
As a result of info the flows of the P Mine Project. An construction or m reconnaissance a Evaluation Repor contained in the I See attached Tec Recommendation/F Accept the Repor	Pinotti spring, the Board of Supervi independent hydrogeologist, EMI nining operations at the mine coul nd reviewed the relevant data and t. Mr. Andy Kopania from EMKO E report to the Board of Supervisors hnical Report. Information and da	tti, trustee for the Aisors directed Coulons directed Coulons directed Coulons directed Coulons directed to the Coulons directed directed for the present directed dire	Aldo and Dorothy Pinotti inty staff to implement M I, Inc., was retained to de decrease in flows at the F e findings of this review a will make a presentation eparation of this report ar	Pinotti spring. EMKO conducted a field ire contained in the attached Technical in of the findings and conclusions ire available on CD, upon request.
Is a 4/5ths vote req	uired? Yes \(\sum \) No \(\sum \)		Contract Attached:	Yes No N/A 🗵
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Committee Review Name	<i>{</i>	N/A 🔀	Ordinance Attached	Yes No N/A
•			Comments:	
Committee Recomm	nendation:			
D Davience	r.			
Request Reviewed	rby:		60	
Chairman	Λ./Δ	Counsel	I	
Auditor	X	GSA Dir	rector <u>Hop</u>	
CAO	L	Risk Ma	anagement	
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Planning Dept.				
		FOR CLERK US	SE ONLY	
Meeting Date3	122/11/	Time		Item#
Board Action: A	pproved Yes No Una	animous Vote: Yes_	No	
Ayes:	Resolution	Ordinanc	Ce	Other:
Noes	Resolution	Ordinanc	 De	
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Distributed on	A new ATF is required from		his is a true and correct copy mador County Board of Supe	of action(s) taken and entered into the official ervisors.
Completed by	Department For meeting	ATTEST:		
	of the carrie	Clerk	or Deputy Board Clerk	

A CD containing data and information used in preparation of the Technical Evaluation Report is available upon request at the Amador County Planning Department.

Technical Evaluation Report For Lincoln Mine Mitigation Measure 61.1.1 Monitoring



Prepared for:

Planning Department
County of Amador
810 Court Street
Jackson, California 95642

Prepared by:

EMKO Environmental, Inc.

551 Lakecrest Drive El Dorado Hills, California 95762

> FINAL February 29, 2016

Technical Evaluation Report For

Lincoln Mine Mitigation Measure 61.1.1 Monitoring

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Technical Evaluation Report For Lincoln Mine Mitigation Measure 61.1.1 Monitoring

1.0 INTRODUCTION

In 1984, Aldo Pinotti was granted an appropriative water right from the State Water Resources Control Board (Application ID A028136) for irrigation use of water from a spring located east of Hanford Street (Old Highway 49) and south of Amelia Drive (referred to herein as the "Pinotti Spring"). The appropriative water right allows diversion of up to 5,000 gallons per day and a maximum annual usage of 1.3 acre-feet (equivalent to approximately 424,000 gallons).

Aldo Pinotti and trustees for the Aldo and Dorothy Pinotti Family Trust (Trust) have previously provided comments to Amador County expressing concerns regarding the potential for underground mining and related activities to impact flows from the spring (see testimony of Aldo Pinotti on the Final Phase II EIR for Conditional Use Permit No. 89:7-11 for the Lincoln Mine).

Mitigation Measure 61.1.1 for the Lincoln Mine requires the permittee, Sutter Gold Mining Company (SGMC), to resume the surface water and groundwater monitoring program that was previously in place. This mitigation measure also requires the permittee to investigate any observations that indicate a decrease in water quality or a decrease of 25 percent or more in groundwater levels or spring and seep flows from established baseline conditions. The mitigation measure also includes a provision whereby the County may hire, at the permittee's expense, a qualified hydrogeologist to determine the probability that the mining project construction or operations could be causing any observed decreases in water quality or quantity.

On February 10, 2013, Jean Pinotti, trustee for the Trust, sent a letter to the Amador County Planning Department stating that on September 16 or 17, 2012, the flow rate of the spring decreased from its typical rate of 30 to 40 gallons per minute to less than five gallons per minute. The allegations of the Trust were heard by the Amador County Board of Supervisors in May and June 2014. The Board directed County Staff to implement Mitigation Measure 61.1.1 and engage an independent qualified hydrogeologist to determine the probability that construction or mining operations at the Lincoln Mine that were being conducted or had been conducted could be causing the decrease in flows in the Pinotti spring. In October 2015, Amador County retained EMKO Environmental, Inc. to provide the assessment and determination directed by the Board, as defined in Amador County Request for Proposal (RFP) No. 15-10.

The scope of this assessment includes:

- Field reconnaissance of the Pinotti Spring and the Lincoln Mine;
- Review of available data and documents;
- Preparation of this Technical Evaluation Report;
- Meeting with County staff; and
- Presentation of the Findings to the Amador County Board of Supervisors.

Field reconnaissance observations of the Pinotti Spring and the Lincoln Mine were conducted on November 17, 2015 by Dr. Andrew Kopania of EMKO Environmental, Inc. and Susan Grijalva of the Amador County Planning Department.

This Technical Evaluation Report includes a summary of the findings of the field reconnaissance, provides an analysis of relevant data and documentation, and presents conclusions regarding the notification received by Amador County from the Trust.

2.0 PINOTTI SPRING

The location and conditions at the Pinotti Spring were assessed based on the field reconnaissance, records available in the Amador County Planning Department files for the Lincoln Mine project, and additional information provided by the Trust.

2.1 Spring Location and Diversion

The Pinotti Spring originates approximately 500 feet northeast of the Pinotti property, to the east of the property at 160 Hanford Street in Sutter Creek, California. The exact location of the spring was not identified during this reconnaissance, but appears to be located within an area of thick vegetation on a hillside to the east of the 160 Hanford Street property. An underground pipe extends from the area of the spring to a small cistern on the 160 Hanford Street Property. From the cistern, the water flows to a storm drain that extends from Hanford Street southwestward to Sutter Creek. The Trust diverts water from the storm drain at a utility box at the front of the Pinotti property at 175 Spanish Street. Figure 1 shows the location of the underground pipe, cistern, storm drain, and Pinotti diversion.

At the point of diversion, water is conveyed to two buried tanks on the 175 Spanish Street property for irrigation use. Any overflow from the tanks is directed to Sutter Creek. Figure 2 is a schematic showing the general components of the spring and diversion system.

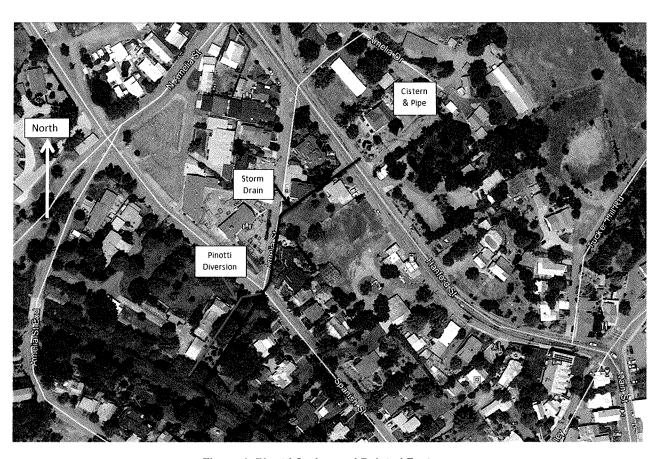
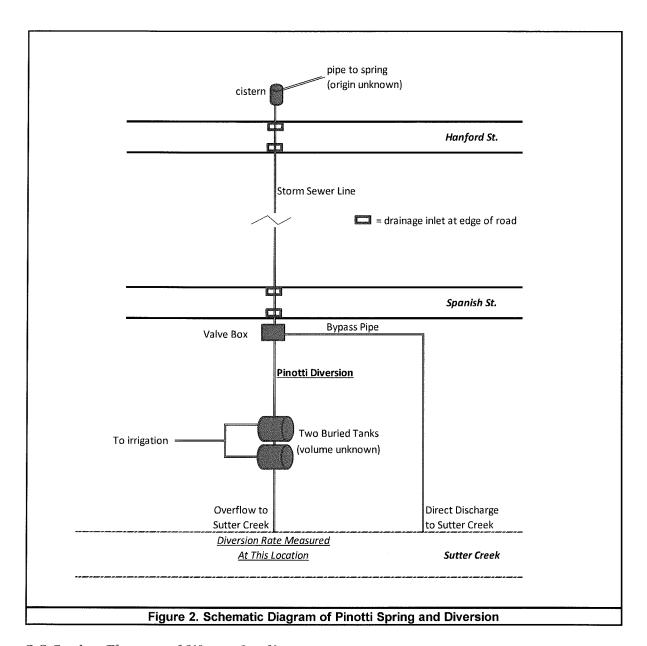


Figure 1. Pinotti Spring and Related Features



2.2 Spring Flows and Water Quality

Prior to the field reconnaissance, limited data regarding the Pinotti Spring was identified in the Amador County Planning Department files for the Lincoln Mine project. The data indicate that in 1989, 1990, and 1991, Mark Cunha from the Amador Regional Sanitation Authority (ARSA) conducted limited testing and measurements on the spring discharge into Sutter Creek.

On July 10, 1989, a water sample from the spring discharge was collected and analyzed by ARSA for general mineral parameters and metals. The water-quality data are summarized in Table 1. The water is classified as a calcium-bicarbonate water, with a

low total dissolved solids (TDS) concentration of 116 milligrams per liter (mg/L) or parts per million (ppm) and a very low alkalinity of 18 mg/L. The pH was 7.2, which is in the neutral range. Overall concentrations of minerals and salts were very low, as indicated in Table 1. The only metals detected at notable levels were arsenic at 10 micrograms per liter (μ g/L) or parts per billion (ppb) and iron at 80 μ g/L. Typical drinking water standards for TDS, arsenic, and iron are 500 mg/L, 10 μ g/L, and 300 μ g/L, respectively. Thus, at the time the sample was collected, the water from the Pinotti Spring met applicable drinking water standards. Overall, the water quality data indicate that the water from the Pinotti Spring is consistent with local rainfall that has percolated into the shallow bedrock and that has not been present for an adequate amount of time to dissolve a sufficient quantity of minerals to equilibrate with the bedrock.

Table 1Pinotti Spring Water Quality Data

Constituent	Units	Value
рН	std units	7.2
Specific Conductance	umhos/cm	76
Alkalinity	mg/L	18
Total Dissolved Solids	mg/L	116
Calcium	mg/L	6.4
Magnesium	mg/L	2
Sodium	mg/L	2.4
Potassium	mg/L	0.51
Bicarbonate	mg/L	18
Chloride	mg/L	5
Sulfate	mg/L	8.1
Arsenic	ug/L	10
Iron	ug/L	80

umhos/cm = micromhos per centimeter mg/L = milligrams per liter or parts per million (ppm) ug/L - micrograms per liter or parts per billion (ppb) Sampled 7/10/1989 by Mark Cunha for ARSA Sample collected at discharge point to Sutter Creek

The flow rate of the spring discharge to Sutter Creek was measured 13 times between July 30, 1990 and August 23, 1991, as shown in Table 2. The flow rate varied from about 25 gallons per minute (gpm) up to 50 gpm. The average of these measurements is 35.4 gpm.

Table 2Measured Flow Rates
From Pinotti Spring

Date	Flow (gpm)
7/30/1990	28.8
8/14/1990	29.4
8/24/1990	29.4
9/5/1990	24.9
10/3/1990	29.4
11/29/1990	50
1/16/1991	27.3
2/13/1991	46.9
4/4/1991	50
5/15/1991	40
6/7/1991	33.3
7/11/1991	37.5
8/23/1991	33

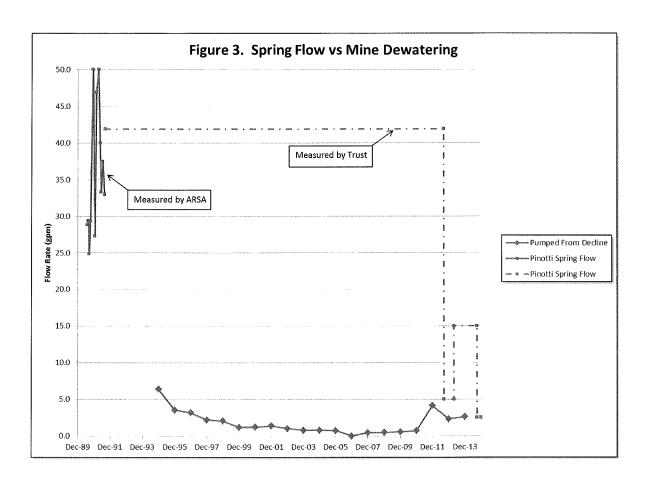
During the November 17, 2015 field reconnaissance, Jean Pinotti provided additional flow measurements made by the Trust. Prior to September 16, 2012, the average flow rate was reported as 41.9 gpm. From September 16, 2012 to May 3, 2013, the flow rate decreased to 5 gpm. From May 3, 2013 to October 1, 2013 the flow rate increased to 15 gpm. After October 1, 2013, the flow rate decreased to 2.5 gpm. During the November 17, 2015 field reconnaissance, there was no flow observed at any point along the spring or diversion system. Figure 3 shows the measured and reported flows from the Pinotti Spring.

3.0 LINCOLN MINE

To determine the probability that construction or operations at the Lincoln Mine could have caused the reported decreases in water flows at the Pinotti Spring, the following information has been reviewed and evaluated:

- History of construction and mining activity at the Lincoln Mine;
- Borehole drilling records, water level data, and aquifer properties;
- Blasting records;
- · Mine dewatering records; and
- Water quality data.

The documents and records reviewed are too numerous and diverse to list here. Therefore, the attached compact disc (CD) includes copies of the all of the documents and records reviewed and relied upon for this analysis.



3.1 History of Activity at Lincoln Mine

Underground mining has been occurring at and around the current location of the Lincoln Mine since the 1850s. More recent permitting and mining activities have occurred intermittently since at least the 1980s. At least 15 to 20 exploratory boreholes were drilled at the site in 1988. From August 1989 to September 1990, the Stringbean Decline was constructed. The Decline extends over a distance of approximately 2,900 feet. The portal elevation is approximately 1,170 feet above mean sea level (ft msl) and the end of the decline is at approximately 840 ft msl, which is about 500 feet below ground surface (ft bgs). The decline is oriented toward the south-southeast.

SGMC initiated more recent activity at the Lincoln Mine beginning in 2011. From January to April 2012, approximately 10 boreholes were drilled near the south end of the decline. Excavation of additional underground workings began in September 2012, as described further below, along with construction of mining support facilities including milling and processing structures and waste management units. However, to date, mining and processing of ore under the most recent permit have not occurred.

3.2 Borehole Drilling, Water Level Data, and Aquifer Properties

A series of 15 to 20 exploratory boreholes were drilled at the Lincoln Mine site in 1988. Eleven of these boreholes were converted to monitoring wells to measure groundwater levels and collect water quality samples. Figure 4 shows the location of the monitoring wells. The monitoring wells were completed with plastic well casing inserted into the drill hole and a sanitary seal to prevent surface contaminants from entering the boreholes and affecting the groundwater. The monitoring wells do not include a sand pack around the plastic casing. In the maps and tables provided by SGMC and included in this report, the 1988 boreholes and monitoring wells have the prefix MDDH.

The total depth of the 1988 monitoring wells varies from about 260 ft bgs to about 565 ft bgs. The depth to groundwater within the monitoring wells at the time they were installed varied from 18 ft bgs to 80 ft bgs, equivalent to above-sea-level elevations of 1255 ft msl to 1475 ft msl. The water level data from the monitoring wells suggest that after construction of the Stringbean Decline, from August 1989 to September 1990, seasonal water-level fluctuations may have increased. For example, in 1988 and early 1989, the seasonal fluctuations were typically about 30 feet or less. However, in 1990-1992, the seasonal fluctuations ranged from 25 ft to as much as 110 ft.

Figure 5 is a hydrograph that shows the water level data from monitoring well MDDH-43. This monitoring well was selected for presentation in this report because it is representative of the typical trends and fluctuations seen in most of the 1988 wells. Also shown on Figure 5 is a timeline of the period during which the Stringbean Decline was constructed, and the date at which the decline passed under the location of MDDH-43 (i.e. March 15, 1990). The data on Figure 5 show that in 1990, 1991, and 1992, the seasonal declines in the water levels at MDDH-43 were fairly consistent from year to year. The data also show that the fluctuations that occurred after the decline passed under the location of the monitoring well were within the range of water level fluctuations that occurred prior to construction of the decline.

SGMC has continued to collect water level data in some of the 1988 monitoring wells. The blue rectangles on the right side of Figure 5 show the water levels measured by SGMC at MDDH-43 in July 2012, October 2013, and May 2014. The more recent data measured from 2012 to 2014 indicate that water levels are within the same range as they were in 1990 to 1992 and that the seasonal fluctuations are similar to or less than they were immediately after the decline was constructed.

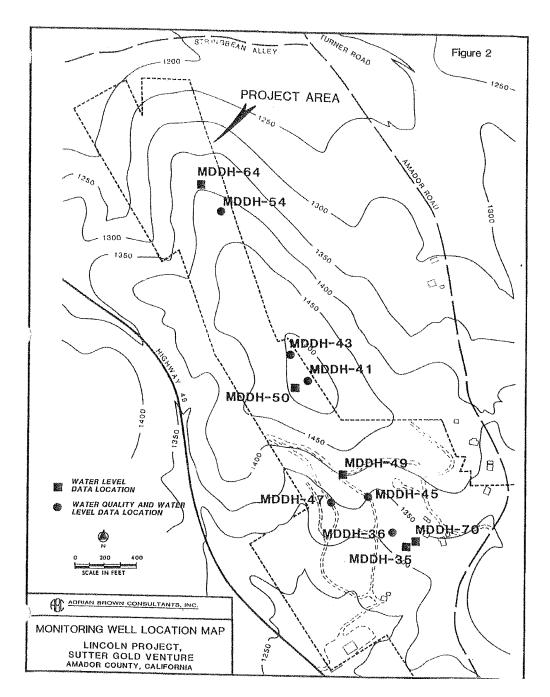


Figure 4. 1988 Monitoring Well Location Map

WELL HYDROGRAPH MDDH-43

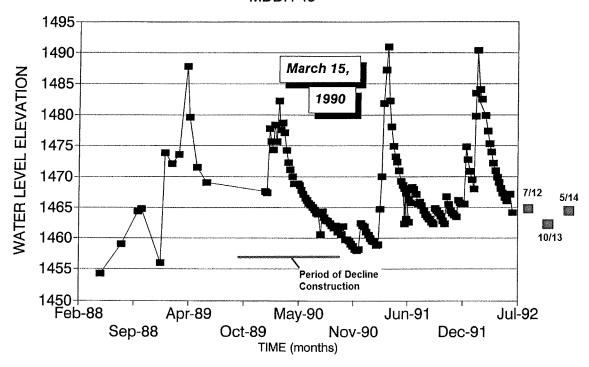


Figure 5. Water Level Hydrograph for Monitoring Well MDDH-43

In 1989, falling-head tests were conducted in nine of the MDDH monitoring wells to estimate the hydraulic conductivity of the bedrock encountered while drilling. The falling head tests were conducted by filling each monitoring well with water and then measuring the rate at which the water level fell within the plastic well casing. Hydraulic conductivity is an aquifer property that describes how easily water can move through a geologic material. It is a measure of the permeability of the rock to water. Sandy aguifers, such as those found in the Central Valley, and highly fractured bedrock, may typically have hydraulic conductivities of 10⁻² centimeters per second (cm/sec) (equivalent to 0.01 cm/sec) or higher. The hydraulic conductivities measured in the nine monitoring wells at the mine property in 1989 ranged from 10⁻⁶ cm/sec to 10⁻⁸ cm/sec (equivalent to 0.000001 cm/sec to 0.00000001 cm/sec). These measured hydraulic conductivities are extremely low. In addition, the rate of water level decline in the monitoring wells during the tests ranged from approximately 0.5 gallons per minute (gpm) to less than 0.01 gpm. The rate of water level decline during the step tests is an indicator of the general range at which groundwater could potentially be pumped from the monitoring wells. The extremely low hydraulic conductivity values and rates of decline demonstrate that the monitoring wells did not encounter any fractures capable of moving significant quantities of water.

Approximately 10 exploration borings were drilled to the south of the end of the Stringbean Decline in January to April 2012. These boreholes were plugged immediately after they were drilled. The 2012 boreholes were plugged by pumping a bentonite or cement-bentonite slurry into the borehole using the drill pipe to ensure the holes were sealed from the bottom of the boring to 20 feet below ground surface. The upper 20 feet of each borehole was sealed using cement. Amador County Environmental Health staff inspected and signed off on the sealing of each of the boreholes. In one of the boreholes, three vibrating-wire piezometers (VWPs) were installed at different depths in the borehole and then grouted in place. The VWPs allow groundwater levels to be measured even after the borehole has been grouted and sealed.

3.3 Blasting Records

Records of any blasting-related activity that occurred at the Lincoln Mine in August and September 2012 were requested from SGMC by Amador County on November 3, 2015. The blasting records were transmitted with a letter dated November 11, 2015 from David Cochrane of SGMC to Susan Grijalva of the Amador County Planning Department. The letter and records indicated that from August 31, 2012 to September 19, 2012, SGMC was requesting proposals from blasting contractors, preparing and submitting a Blast Monitoring Plan (which was approved by Amador County), and providing the County with additional documentation required by Mitigation Measures 43.2.4 and 43.2.6.

Blasting did not commence until September 20, 2012. Table 3 provides a listing of the blast events that occurred in September 2012. All of the blasts occurred at or near the entrance to the 1200 portal and 1300 portal, which are in the area of the mill building, approximately 5,000 feet north-northwest of the Pinotti Spring. Blasting did not occur at or near the end of the Stringbean Decline in September 2012. The records provided by SGMC for each blast include a transmittal record, blast hole plot showing the charge locations within the face of the tunnel, a blast report, a seismic event report, seismographs, and a sound and vibration report.

Numerous studies of blasting effects on wells and aquifers (Berger and Associates, 1980; Center for Water Research, 1992; Hawkins, 2000; Kim and Lee, 2000) indicate that potential effects are typically not observable at distances beyond approximately 100 feet from the blast site. These studies also indicate that at peak particle velocities (PPVs) less than 2.0 inches per second, there is little or no potential to affect groundwater wells or to disrupt groundwater aquifers. Table 3 provides the PPVs measured during each blasting event in September 2012, along with the distance from the blast at which the seismograph used to measure the PPV was located. As indicated in Table 3, the PPVs measured during the blasting events conducted in September

2012 varied from 1.47 inches per second at a distance of 38 feet from the blast to 0.02 inches per second at a distance of 299 feet from the blast.

TABLE 3
Blast Records for Sutter Gold Mine
August and September 2012

Blast No.	Date	Time	Location	PPV (in/sec)	Distance from Blast (ft)
1300-001a	9/20/2012	16:24	Entrance to 1300 portal	0.68	55
1300-001b	9/20/2012	18:01	Entrance to 1300 portal	0.053	55
1200-001	9/24/2012	10:50	Entrance to 1200 portal	0.02	299
1300-002	9/24/2012	17:09	Entrance to 1300 portal	0.87	55
1200-002	9/24/2012	12:17	11 ft into 1200 portal	0.03	299
1300-003	9/25/2012	18:18	46.5 ft into 1300 portal	0.78	47
1200-003	9/26/2012	10:33	18 ft into 1200 portal	0.19	150
1200-004	9/27/2012	10:04	24.25 ft into 1200 portal	ND	150
1300-004	9/27/2012	10:05	53.5 ft into 1300 portal	1.47	38
1200-005	9/27/2012	17:16	31.5 ft into 1200 portal	0.035	332
1300-005	9/28/2012	10:02	60.5 ft into 1300 portal	0.32	102

Notes

- 1. No blasting prior to 9/20/2012
- 2. 1200 portal and 1300 portal are located approximately 5,000 ft NNW of Pinotti Spring
- 3. Information from 11/13/15 letter from David Cochrane of SGMC to Susan Grijalva, Amador County Planning Dept.
- 4. PPV = Peak Particle Velocity, in inches per second
- 5. ND = Not Detectable

3.4 Mine Dewatering

Water that enters the Stringbean Decline is pumped through a water treatment system and then discharged from the mine in accordance with Waste Discharge Requirements Order No. 99-035 (WDRs). The water is treated primarily to remove arsenic before discharge. Monthly dewatering volumes and water quality results are reported to the Regional Water Quality Control Board in accordance with the WDRs. Annual dewatering rates are shown in Table 4, including both the total annual dewatering volume and the equivalent average annual pumping rate, in gpm. This information was obtained from Table 1 of the August 23, 2013 letter from David Cochrane of SGMC to Susan Grijalva of the Amador County Planning Department. Annual dewatering volumes were available for 1994 through 2012 for this technical evaluation.

Figure 3 shows the average annual pumping rate, in gpm, for the mine dewatering. Also shown on Figure 3 is the flow rate of the Pinotti Spring, as described above. The amount of water pumped from the Stringbean Decline has been substantially less than the flow from the Pinotti Spring. While there was an increase in flow from the mine from an average of 0.7 gpm in 2010 to an average of 4.1 gpm in 2011, the flow rate decreased to 2.3 gpm in 2012 and was 2.6 gpm in 2013.

Table 4Annual Dewatering Volumes
From Stringbean Decline
1994-2013

	Water Pumped from Decline		
Year	Annual Total	Average Rate	
	(gallons)	(gpm)	
12/31/1994	3345000	6.4	
12/31/1995	1851190	3.5	
12/31/1996	1675000	3.2	
12/31/1997	1146000	2.2	
12/31/1998	1077000	2.0	
12/31/1999	619245	1.2	
12/31/2000	628250	1.2	
12/31/2001	716000	1.4	
12/31/2002	527000	1.0	
12/31/2003	410395	0.8	
12/31/2004	407339	0.8	
12/31/2005	381894	0.7	
12/31/2006	NR		
12/31/2007	235000	0.4	
12/31/2008	241000	0.5	
12/31/2009	290000	0.6	
12/31/2010	368654	0.7	
12/31/2011	2172245	4.1	
12/31/2012	1215326	2.3	
12/31/2013	1370000	2.6	

NR = Not Reported

3.5 Water Quality

SGMC has collected and analyzed water samples from a sump at the end of the Stringbean Decline on at least 14 occasions since September 2012. Table 5 provides a summary of the main constituents present in the water. The water from the Decline has a moderately elevated TDS concentration ranging from 258 mg/L to 747 mg/L, with an average concentration of 396 mg/L. Sulfate, chloride, and sodium concentrations

average 85 mg/L, 7 mg/L, and 43 mg/L, respectively. Arsenic is present at concentrations ranging from 130 μ g/L to 400 μ g/L, with an average concentration of 263 μ g/L. The iron concentration varies from less than 5.0 μ g/L to 120 μ g/L, with an average concentration of 26 μ g/L. The water from the Decline consistently exceeds the drinking water standard for arsenic and occasionally exceeds the standards for TDS. Overall, the water quality data indicate that the water from the Decline has been affected by mineralization within the bedrock and is consistent with groundwater that has been present within the bedrock for a long period of time.

Table 5Stringbean Decline Water Quality Data

Date	Sulfate	Chloride	Iron	Sodium	TDS	As
Units	mg/L	mg/L	ug/L	mg/L	mg/L	ug/L
9/5/2012	90	7.5	<5.0	51	389	400
9/24/2012	91	7.4	<5.0	47	343	330
10/4/2012	77	7.8	<5.0	46	329	310
10/23/2012	100	8.2	6	61	352	330
11/1/2012	94	7.2	26	46	375	280
11/6/2012	100	7.8	34	52	392	270
11/15/2012	78	6.2	35	33	383	220
12/5/2012	67	5.4	42	38	384	170
12/13/2012	63	5.6	26	30	308	190
2/26/2013	68	6.5	120	50	642	130
3/28/2013	65	5.1	18	28	360	190
4/25/2013	69	5.1	<5.0	28	286	230
2/25/2014	130	8.4	46	46	747	230
10/10/2014	97	6.4	<10.0		258	400
Average:	85	7	26	43	396	263

TDS = total dissolved solids

mg/L = milligrams per liter or parts per million (ppm)

ug/L = micrograms per liter or parts per billion (ppb)

4.0 DATA ANALYSIS

For this technical evaluation, the following conditions have been analyzed to determine whether there is any potential correlation between mining-related activities and reduced flows at the Pinotti Spring:

- Timing and location of mining activities, including blasting;
- Borehole drilling, water level data, and aquifer properties;
- · Rate of mine dewatering; and
- Water-quality conditions.

As discussed above, construction of the Stringbean Decline occurred from August 1989 to September 1990. More recent activity at the Lincoln Mine was initiated by SGMC in 2011. Blasting activity, however, did not begin until September 20, 2012, which is three to four days after the decreased flow in the Pinotti Spring is reported to have occurred. In addition, the blasting in September 2012 occurred at the entrances to the 1200 portal and 1300 portal, which are located at least 5,000 feet from the spring. Measurement of the PPVs from the blast events shows that the vibrations from the blasting were below the threshold of 2.0 inches per second at locations as close as 38 feet from the blast. Therefore, even if the blasting events had occurred on or prior to September 17, 2012, they did not produce sufficient vibration to have affected groundwater conditions at distances of more than 10 or 20 feet from the actual blast location, and certainly not at distances of 5,000 feet or more from the blast.

Of the 15 to 20 boreholes that were drilled in 1988, 11 were converted to monitoring wells. Water levels measured in the monitoring wells suggest that there is the possibility that seasonal fluctuations in the groundwater levels may have increased somewhat after the Stringbean Decline was constructed. However, construction of the decline occurred 22 years before the abrupt change in flows in the spring on September 16 or 17, 2012. Any potential effect on water levels due to the presence of the decline would have been taking place since the initial observations in 1990 to 1992. In addition, tests conducted in the monitoring wells to measure the aquifer properties of the bedrock demonstrate that the wells do not intercept any significant fracture zones and are only capable of transmitting 0.5 gpm to less than 0.01 gpm. Therefore, not only were the Decline and the monitoring wells installed long before flows at the Pinotti Spring decreased, but the monitoring wells do not have the capacity to act as conduits to divert significant quantities of groundwater away from the spring.

An additional 10 exploratory borings were drilled near the south end of the Decline in January to April 2012. However, all of these borings were plugged with bentonite and cement immediately after they were drilled, as confirmed by Amador County Environmental Health staff. Since all of the 2012 boreholes were completely sealed, and inspected by the county, there is no potential that the January to April 2012 drilling program created any new pathways for groundwater migration into the Decline or any other mine workings in the area.

According to information provided by the Trust, prior to September 16, 2012, the average flow rate from the spring was 41.9 gpm, but that on September 16, 2012 it abruptly dropped to 5 gpm. Figure 3 presents a comparison of the flow rate from the spring compared to the rate of dewatering from the Stringbean Decline. In 2012 and 2013, the annual average dewatering rate from the Decline ranged from 2.3 gpm to 2.6 gpm, respectively, well below the 36.9 gpm loss of spring flow that is reported to have occurred on September 16, 2012. In addition, there was no abrupt increase in the rate

at which water was flowing into the Decline, as measured by the dewatering rate, in 2012 compared to prior years. Based on the information related to the change in flow rates from the spring and the dewatering rate from the Decline, there was not a change in water flows into the mine that correlates either in time or in flow rate with the change in flow from the Pinotti Spring.

Water quality data from the spring indicates that the water has a very low TDS level, relatively low levels of sulfate, sodium, and arsenic, and an elevated level of iron. In contrast, the water from the Decline has much higher concentrations of TDS, sulfate, sodium, and especially arsenic, and much lower levels of iron. There also does not appear to be any appreciable change in water quality at the Decline in September 2012 that would be expected if water from the Spring were to suddenly start mixing with water in the fractures that intersect the Decline.

5.0 CONCLUSIONS

The notification from the Trust to Amador County is very specific as to the timing and magnitude of the alleged effects on the Pinotti Spring from mining activities. Therefore, this technical evaluation prepared on behalf of Amador County focuses on activities that occurred on or before September 16, 2012 that could have affected the spring. However, a temporal correlation itself does not demonstrate causation. To clearly establish causation, there must also be observable effects that are consistent with conditions at the spring.

More specifically, on September 16, 2012, the flow in the spring is reported to have decreased by about 37 gpm, and the water discharged from the spring has a distinctive set of water quality parameters. Any effect must have some measurable relationship in terms of changes in flow rate or water quality.

As described above, blasting by SGMC did not begin until September 20, 2012, several days after the reported change in flows at the spring. Thus, there is not a temporal correlation between the blasting activity and the change in flow from the spring. In addition, detailed measurements of the energy released by the blasts, as defined by the PPVs, shows that the blasts did not have the potential to affect the spring, the groundwater aquifer, or the monitoring wells in the area. Thus, the blasts could not have altered fractures in the bedrock near the spring and could not have damaged the monitoring wells or seals in the borings.

Boreholes and monitoring wells drilled in the vicinity of the mine site also do not have the potential to act as conduits to divert water from the spring. The 11 MDDH monitoring wells were installed in 1988, long before any changes were observed at the spring. Tests of the wells show that they do not have the ability to transmit more than

0.5 gpm of water, which is far less than the reported 37 gpm flow reduction at the spring. Borings drilled in early 2012 were immediately plugged after drilling and, thus, could not act as conduits for water movement.

The rate that water entered the mine workings, as reflected by the dewatering rates, did not increase in 2012 and, at 2.6 gpm, was far below the 37 gpm flow reduction at the spring. The water quality data also show that there was no significant change in the water chemistry in the mine workings, such that there is no indication of any mixing of water from the spring with the groundwater that seeps into the mine.

Based on the information that was available for this evaluation, there does not appear to be any scientific evidence that suggests that the actions conducted at the Lincoln Mine, either by SGMC or by prior operators, could have affected the Pinotti Spring. There is not a temporal correlation and no observable effects that are consistent with conditions at the spring. All of the available data indicate that there is no reasonable scientific possibility that the mining activities had any effect on the flow rate at the spring that are reported to have occurred on September 16, 2012. In the context of Mitigation Measure 61.1.1, this technical evaluation concludes that the probability that the mining project construction or operations could be causing any observed decreases in water quality or quantity is zero, based on the evidence available at the time this analysis was prepared.

6.0 REFERENCES CITED

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Kim, D and J. Lee, 2000, Propagation and attenuation characteristics of various ground vibrations, Journal of Soil Dynamics and Earthquake Engineering, V. 19, pp. 115-126. http://www-classes.usc.edu/engr/ce/599/Thesis/aa.pdf

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Regular Agenda
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AGENDA TRANSMITTAL FORM

Board of Supervisors

To:

Blue Slip 03/16/2016 Closed Session Date: Meeting Date Requested: Phone Ext. x470 John Plasse, Chairman 03/22/2016 From: (Department Head - please type) Department Head Signature Agenda Title: **Biomass Plants** Summary: (Provide detailed summary of the purpose of this item; attach additional page if necessary) Discussion and possible action relative to approval of the Chairman's signature on a letter to the Governor regarding his recent Emergency Proclamation on tree mortality which highlighted the unprecedented volume of dead and dying trees in the State's forests, it also calls for the state to dispose of the dead trees including the use of biomass. Recommendation/Requested Action: Fiscal Impacts (attach budget transfer form if appropriate) Staffing Impacts Is a 4/5ths vote required? O N/A Contract Attached: Resolution Attached: Committee Review? Ordinance Attached Name Comments: Committee Recommendation: Request Reviewed by: Chairman Auditor **GSA Director** Risk Management CAO Distribution Instructions: (Inter-Departmental Only, the requesting Department is responsible for distribution outside County Departments) FOR CLERK USE ONLY Meeting Date Board Action: Approved Yes___No___ Unanimous Vote: Yes__No__ Resolution Ordinance Ayes: _ Resolution Ordinance Noes Absent: Comments: I hereby certify this is a true and correct copy of action(s) taken and entered into the official A new ATF is required from Distributed on records of the Amador County Board of Supervisors. Department ATTEST: _ Completed by For meeting Clerk or Deputy Board Clerk

Item# 11

March 15, 2016

The Honorable Edmund G. Brown, Jr. Governor of California State Capitol Sacramento, CA 95814

Dear Governor Brown

The Amador County Board of Supervisors is writing to bring to your attention the vital role biomass facilities play in maintaining balanced, healthy natural resources. Amador County is one of the most beautiful counties in California. Its natural resources include water, forests, rangelands, and clean air.

Amador County is bordered on the North and South by the Cosumnes and Mokelumne Rivers. The Cosumnes River is the only river in the western Sierra without a major dam and feeds the Cosumnes River Preserve before joining the Delta. The Mokelumne River supplies clean water to more than 1.4 million Californians living in Amador, Calaveras, San Joaquin and several Bay Area Counties. With recent droughts, wildfire and bug infestations, it has been increasingly challenging to keep our waters clean and plentiful.

Water resources begin in our forests. Forest vegetation absorbs millions of gallons of water, shade snow accumulations for delayed melt, and filter run-off for clean streams, rivers and underground aquifers. Overly dense forests use water that otherwise would add to our state's water system. In times of drought, there is insufficient water to keep dense forests healthy. The result is increasing mortality. Your recent Emergency Proclamation on tree mortality highlighted the unprecedented volume of dead and dying trees in the State's forests. Dense, unhealthy forests are also prone to catastrophic wildfire, such as the Butte Fire which last year destroyed homes and vegetation on over 70,000 acres in Amador and Calaveras Counties. Fire-scared forests loose their ability to delay snow melt, cripple their filtration system, and foster soil movement into our streams and rivers.

Forest managers recognize the ecological value in removing small diameter trees and vegetation. Green trees over 6 inches can often be transported to produce commercially viable products that help pay the expense of maintaining healthy forests. Dead trees and trees less than 6 inches have few commercial outlets. Mastication, prescribed fire and pile burning are all options to removal, but for dense forests, none are as ecologically helpful or economically supportive as removal and utilization. Mastication retains the fuel for many years maintaining the fire risk. Prescribed fire and pile burning pollutes our clean air and can kill surrounding trees. Residents in many counties are prohibited from burning wood in fireplaces due to the threat to air quality.

Biomass facilities can be economically viable if located close enough to the forest. More importantly, California biomass plants collectively receive roughly 6.6 million tons of wood biomass annually to efficiently produce more than 600 megawatts of baseload renewable energy. On the removal side, these biomass plants reduce the annual CO2 emissions by 2.2 million tons compared to processing the wood by mastication, burning or left to decay. The electrical generation is a renewable form of energy, saving future investments in non-renewable facilities.

Small wood utilization is critical in the management of forests, water, rangeland and maintaining clean

air. As the State's Tree Mortality Task Force reported, keeping operating biomass facilities open and opening new facilities is a high priority. Catastrophic tree mortality began with six central counties, but now is moving northward. Tree mortality has reached epidemic proportion in both Amador and Calaveras Counties causing each to declare a local state of emergency and imminent threat of disaster. The devastating Butte Fire left thousands of small trees in its wake that must be removed to rebuild and ensure a future healthy landscape. Biomass facilities remain our best option. We are confident that collectively, the state's agencies and the California Public Utilities commission will find a solution for economical and ecological management of small diameter vegetation for the benefit of the State's natural resources.

Thank you for your interest in resolving this complex issue.

Sincerely,

John Plasse Chairman, Amador County Board of Supervisors

Cc: Michael Picker, President, California Public Utilities Commission John Laird, Secretary, Natural Resources Agency Matt Rodriguez, Secretary, Cal-EPA Karen Ross, Secretary, California Department of Food and Agriculture Felicia Marcus, Chair, State Water Resources Control Board Scott Smithline, Director, CalRecycle Mary D. Nichols, Chair, California Air Resources Board Michel Peter Florio, Commissioner, California Public Utilities Commission Carla J. Peterman, Commissioner, California Public Utilities Commission Liane M. Randolph, Commissioner, California Public Utilities Commission Catherine J.K. Sandoval, Commissioner, California Public Utilities Commission

Executive Department

State of California

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS the State of California is experiencing record drought conditions, which have persisted for the last four years; and

WHEREAS on January 17, 2014, I proclaimed a State of Emergency to exist throughout the State of California due to severe drought conditions; and

WHEREAS a lack of precipitation over the last four years has made trees in many regions of California susceptible to epidemic infestations of native bark beetles, which are constrained under normal circumstances by the defense mechanisms of healthy trees; and

WHEREAS these drought conditions and resulting bark beetle infestations across broad areas have caused vast tree mortality in several regions of the state, with the United States Forest Service estimating that over 22 million trees are dead and that tens of millions more are likely to die by the end of this year; and

WHEREAS recent scientific measurements suggest that the scale of this tree die-off is unprecedented in modern history; and

WHEREAS this die-off is of such scale that it worsens wildfire risk across large regions of the State, presents life safety risks from falling trees to Californians living in impacted rural, forested communities, and worsens the threat of erosion across watersheds; and

WHEREAS such wildfires will release thousands of tons of greenhouse gas emissions and other harmful air pollutants; and

WHEREAS the circumstances of the tree die-off, by reason of its magnitude, is or is likely to be beyond the control of the services, personnel, equipment and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provisions of section 8558(b) of the California Government Code, I find that conditions of extreme peril to the safety of persons and property exist within the State of California due to these events; and

WHEREAS under the provisions of section 8571 of the California Government Code, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the drought.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, section 8625 of the California Government Code, HEREBY PROCLAIM A STATE OF EMERGENCY to exist within the State of California.

IT IS HEREBY ORDERED THAT:

- The Department of Forestry and Fire Protection, the California Natural Resources Agency, the California Department of Transportation, and the California Energy Commission shall immediately identify areas of the State that represent high hazard zones for wildfire and falling trees using best available science and geospatial data.
- 2. State agencies, utilities, and local governments to the extent required by their existing responsibilities to protect the public health and safety, shall undertake efforts to remove dead or dying trees in these high hazard zones that threaten power lines, roads and other evacuation corridors, critical community infrastructure, and other existing structures. Incidental vegetation such as shrubs that restrict access for safe and efficient removal of the dead and dying trees also may be removed. The Department of Forestry and Fire Protection shall issue emergency guidelines setting forth the relevant criteria, and the California Conservation Corps shall assist government entities in implementing this directive to the extent feasible.
- The Department of Forestry and Fire Protection shall identify potential storage locations for removed trees across impacted areas in partnership with federal agencies and local jurisdictions.
- 4. The California Department of Transportation shall formally request immediate assistance through the Federal Highway Administration's Emergency Relief Program, Title 23, United States Code section 125, in order to obtain federal assistance for removal of dead and dying trees that are adjacent to highways.
- The Department of General Services will identify state facilities, and the California Department of Transportation shall identify highway and road corridors, where woodchips produced from dead trees can be used as mulch.
- 6. The Governor's Office of Emergency Services and the Department of Forestry and Fire Protection shall work with impacted counties to distribute portable equipment across high hazard zones so that isolated communities can remove and process wood waste locally where appropriate.
- 7. The California Air Resources Board and the California Department of Forestry and Fire Protection shall work together and with federal land managers and the United States Environmental Protection Agency to expand the practice of prescribed burns, which reduce fire risk and avoid significant pollution from major wildfires, and increase the number of allowable days on a temporary basis to burn tree waste that has been removed in high hazard areas.



- 8. The California Public Utilities Commission shall utilize its authority to extend contracts on existing forest bioenergy facilities receiving feedstock from high hazard zones.
- 9. The California Public Utilities Commission shall take expedited action to ensure that contracts for new forest bioenergy facilities that receive feedstock from high hazard zones can be executed within six months, including initiation of a targeted renewable auction mechanism and consideration of adjustments to the BioMat Program defined pursuant to Public Utilities Code section 399.20. No later than six months after the BioMat program begins, the California Public Utilities Commission shall evaluate the need for revisions to the program to facilitate contracts for forest bioenergy facilities.
- 10. The California Public Utilities Commission shall prioritize facilitation of interconnection agreements for forest bioenergy facilities in high hazard zones, and shall order the use of expedited mediation or other alternative dispute resolution processes when conflicts delay development of projects.
- 11. The California Energy Commission shall prioritize grant funding from the Electric Program Investment Charge for woody biomass-to-energy technology development and deployment, consistent with direction from the California Public Utilities Commission.
- 12. The California Department of Forestry and Fire Protection, the California Energy Commission, and other appropriate agencies shall work with land managers to estimate biomass feedstock availability, storage locations, and volumes that may be available for use as bioenergy feedstock at existing and new facilities.
- 13. The California Department of Forestry and Fire Protection and the California Energy Commission shall work with bioenergy facilities that accept forest biomass from high hazards zones to identify potential funds to help offset higher feedstock costs.
- 14. The California Department of Resources Recycling and Recovery and the California Department of Forestry and Fire Protection will work with affected counties and existing wood product markets to determine the feasibility for expanded wood product markets in California.
- 15. For purposes of carrying out directives 1, 2, and 5 through 8, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended. This suspension applies to any actions taken by state agencies, and for actions taken by local agencies where the state agency with primary responsibility for implementing the directive concurs that local action is required, as well as for any necessary permits or approvals required to complete these actions.

- 16. In order to ensure that equipment and services necessary for emergency response can be procured quickly, the provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended as necessary to carry out this Proclamation. Approval by the Department of Finance is required prior to the execution of any contract entered into pursuant to these directives.
- 17. For purposes of this Proclamation, Chapter 3.5 (commencing with section 11340) of Part 1 of Division 3 of the Government Code is suspended for the development and adoption of regulations or guidelines needed to carry out the provisions in this Order. Any entity issuing regulations or guidelines pursuant to this directive shall conduct a public meeting on the regulations and guidelines prior to adopting them.
- 18. The Office of Emergency Services shall provide local government assistance as appropriate under the authority of the California Disaster Assistance Act, California Government Code section 8680 et seq. and California Code of Regulations, title 19, section 2900 et seq.
- 19. State agencies shall actively monitor tree removal efforts directed by this Proclamation to assess their effectiveness in protecting forest health and strengthening forest resilience.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 30th day of October 2015.

EDMUND G. BROWN JR. Governor of California

ATTEST:

ALEX PADILLA Secretary of State





March 9, 2016

The Honorable Edmund G. Brown, Jr. Governor of California State Capitol Sacramento, CA 95814

Dear Governor Brown:

We appreciate the opportunity to bring to your attention the role that biomass facilities play in maintaining healthy forests and therefore sustaining a healthy watershed.

The waters of our great state begin in the mountains. Whether it falls initially as snow or rain, the millions of tiny creeks that permeate our mountains and foothills eventually combine to form our great rivers, upon which nearly every Californian relies. This same precipitation also finds its way underground, where gravity and geology determine its role in the hydrologic cycle California depends upon.

Your recent Emergency Proclamation on tree mortality highlighted the unprecedented volume of dead and dying trees in the State's forests. As you are aware, the past recent years have seen devastating fires in our Sierras. While partly a function of drought, the sheer intensity of these fires has also been a function of tree density and overall forest health. We are just beginning to fully understand the roles that an over-crowded and unhealthy forest and a charred landscape can have on the health and sustainability of our water resources and our ecosystems.

Biomass plants are one tool to promote healthier forests by providing an outlet for removal of overgrowth and of dead trees. While mechanical thinning and other options present themselves as tools to address an increasingly-unhealthy forestry, the practical challenge rises of where the thinned trees can go so that California can capitalize on this valuable resource. Biomass plants provide an opportunity for California not only to improve the health of our forests, but also to capitalize on that resource to provide a critical tool for California as it reduces carbon emissions.

The effects of changing precipitation patterns and therefore water resources in California are becoming more pronounced. Combined, California's biomass plants produce more than 600 megawatts of baseload renewable energy and use roughly 6.6 million tons of wood biomass as fuel annually that would otherwise clog landfills or be open-burned. If left to decay, the waste can quickly turn into a fire hazard, as recent experience demonstrates with alarming perspicuity. These plants also reduce criteria pollutant production, avoiding the equivalent of 2.2 million tons of annual CO2 emissions.

Furthermore, the pervasive scars of our most recent fires present another challenge: how California should address the charred remains of what was once majestic forest land and responsibly expedite the ecosystem's healthy recovery. Irrespective of the legal challenges facing forestry managers in the wake of a wildfire to access scorched terrain and remove charred trees, the additional practical challenge remains of what to do with those trees once they have been removed. Again, biomass plants provide an opportunity by providing an avenue for removed charred trees to be put to productive use, instead of standing for decades in an ashen wasteland.

Several of the state's agencies and the California Public Utilities Commission in particular are instrumental in finding a solution to this complex problem.

Thank you for your service and for the opportunity to bring this challenge to your attention.

Sincerely,

Philip A. Williams

Deputy General Counsel

Westlands Water District

John Kingsbury Executive Director

Mountain Counties Water Resources Association

cc: Michael Picker, President, California Public Utilities Commission

John Laird, Secretary, Natural Resources Agency

Matt Rodriguez, Secretary, Cal-EPA

Karen Ross, Secretary, California Department of Food and Agriculture

Felicia Marcus, Chair, State Water Resources Control Board

Scott Smithline, Director, CalRecycle

Mary D. Nichols, Chair, California Air Resources Board

Michel Peter Florio, Commissioner, California Public Utilities Commission

Carla J. Peterman, Commissioner, California Public Utilities Commission

Liane M. Randolph, Commissioner, California Public Utilities Commission

Catherine J.K. Sandoval, Commissioner, California Public Utilities Commission

AGENDA TRANSMITTAL FORM

Board of Supervisors

To:

Date: _	03/16/2016			O Blue Slip Closed Session
From: _	Lynn Morgan, Supervisor District III	Ph	one Ext. <u>x470</u>	Meeting Date Requested: 03/22/2016
	(Department Head - please type)			
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Agenda Title:	Butte Fire Follow Up Summary			
Summary: (Pr	ovide detailed summary of the purpose of thi	is item; attach additior	al page if necessary)	
	and possible action relative to fi de at the Butte Fire Follow Up W			ry of comments and proposed
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Print Form

BUTTE FIRE WORKSHOP SUMMARY

PROMISED IMPROVEMENTS

On February 23, 2016, the Amador County Board of Supervisors held a workshop to analyze the Butte Fire of September 2015 and to identify improvements that may be implemented before our next crisis. The public was invited as were the many agencies that were involved with the fire. The response from responsible agencies was very practical and positive.

Initially, the public was asked to share their observations, frustrations, and concerns about aspects of the fire. The primary concern expressed by residents was the difficulty in getting real time fire updates and other official information. Particularly with the power outage creating diminished availability of internet, no streaming of Hometown Radio, most land line phones inoperable without power and poor cell phone service, communication was seriously lacking. Citizens did not know whether or not they were in danger. Former Police Chief Dick Lockwood emphasized the importance of having both battery powered police band scanners and radios in the home during times of power outages. Citizens also expressed concerns about traffic management, including proper maintenance and clearance of roads in the fire and the need for increased forest management work in clearing trees and building fire breaks to help prevent and contain fires.

Numerous agencies addressed these and other concerns from the fire, as outlined below:

*An Insurance broker spoke about the importance of having fire insurance and making sure that homeowners both video their homes and properties inside and out and to be sure their insurance coverage includes the reimbursement for local building fees and the cost to rebuild to current building standards.

*Chris Post and several other staff from the CALFIRE Amador-El Dorado Unit shared their operational communication and evacuation plans, including the CALFIRE homepage (www.fire.ca.gov) with a 'Current Incidents' link. CALFIRE

emphasized that many of the communications related concerns received from the Butte fire are similar to comments they hear after most large fires , and although they appreciate the public's desire for up to the minute information, they underscored the need for the information they disseminate to be verified and accurate. They also shared that they are creating a pre-planning trifold brochure to assist citizens during fire events, and that strategically placed traditional fuel breaks are instrumental in protecting lives and property.

*Sheriff Ryan shared the fact that they are responsible for evacuation of citizens and that they use a newer version of reverse 911 called 'Code Red' to notify citizens. The Sheriff learned that few people know of the importance of 'Code Red' so his office will soon be mailing a postcard to all county citizens instructing them how to sign up. He also said his office will be increasing 'code red' training for his staff.

*Dylan George from PG&E shared that they provide updated information about power outages via email, texts, landlines, Twitter @PGE4Me and Facebook https://www.facebook.com/pacificgasandelectric, They will continue to immediately set up large capacity generators during such outages. He also encouraged all citizens to hire professionals to install their own backup generators to be sure they are safe.

*Ken Lambert from EBMUD shared that they will work with CALFIRE to communicate availability of water to be used in such fires. They will also communicate with CHP to be sure they are aware of and have access to EBMUD roads around the county if needed for evacuations.

*Dan Edwards from the Amador Amateur Radio Association spoke about the importance of using battery powered scanners and radios in improving communications during crises. The Association currently coordinates with both CALFIRE and County OES to assist with communications.

*Jim McHargue, Director of County Air District and County Public Health Officer Dr. Rita Kerr discussed the importance of having a constant and sufficient supply of particle masks. They plan to make their disaster healthcare volunteer corps

more robust and to continue to train, drill and exercise their plans. They will also continue to work with their Healthcare Coalition partners to practice preparedness for future disasters. They will develop a pre-determined list of distribution centers for these masks.

*Kelly Reason, Director Amador County Animal Control expressed thanks to the Amador County Animal Rescue Team(ACART) and shared that ACART plans to work on streamlining the process to receive donations for the over 400 animals for which they cared during the fire.

*Gene Mancebo, Director of Amador Water Agency plans to improve their mapping system for locating fire hydrants. Rich Farrington, AWA Chair stated that he will appoint a committee to explore funding mechanisms for replacing substandard hydrants upcountry.

*Rick Hopson from USFS spoke of the role they played in assisting the upcountry community by sharing updated CalFire information and suggesting evacuation preparation strategies. They will establish better communication with County Supervisors to inform them of vegetation management projects which help prevent fires.

*Chief David Bellerieve of AFPD stated that they will use Measure M moneys to increase the number fire fighters. He also shared they will help distribute particle masks and they will continue inspecting fire hydrants.

*Frank Lechinsky of Volcano Telephone shared several operations they have undertaken to improve communications during such a crisis. They have already purchased several generators and increased fuel capacity to triple their generator run time when power is out. They are working with other companies to improve and increase cell phone service upcountry by installing microcells and working with other agencies to increase cell towers, hopefully this spring. Frank also pointed out that most homes have land line phone service installed to the exterior of the home, and if the homeowner extends those jacks to a point inside the home and connects an older style rotary phone to it, they will have telephone service even in the event of power outages.

*Jim Guidi, owner/operator of KVGC Home Town Radio stated that KVGC can now be uploaded to cell phones through a new application. He was praised for being one of the most consistent, accurate sources of fire information, though the ability to have access to his station was mostly not available upcountry. Partially in response to those concerns, he announced that KVGC will soon open an FM radio station (96.5) so that coverage will become available upcountry and beyond.

The Workshop was a great success. By inviting the public to share their concerns and from relevant agencies coming forward with operational improvements to implement soon, our county will be much more effectively prepared for our next crises situation. We thank all who attended.

AGENDA TRANSMITTAL FORM

To: Date: From:	AGENDA TRANSMITTA Board of Supervisors 03/16/2016 Jennifer Burns, Clerk of the Board (Department Head - please type) ent Head Signature		hone Ext. <u>x470</u>	Regular Agenda Consent Agenda Blue Slip Closed Session Meeting Date Requested: 03/22/2016
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CAO		Risk Ma	nagement	
Distribution	Instructions: (Inter-Departmental Only, the re-	questing Department	t is responsible for distribut	tion outside County Departments)
		FOR CLERK US	EONLY	
Meeting Dat	2/22/16	Time		Item# 12
		animous Vote: Yes_		
Ayes: Noes Absent:		Ordinanc Ordinanc	ce	Other:
Distributed on	A new ATF is required from		his is a true and correct copy mador County Board of Supe	y of action(s) taken and entered into the official ervisors.
Completed b	Department For meeting of Clerk or Deputy Board Clerk			

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