

**Neighborhood Informational Meeting
BLM Deer Creek Project
May 11, 2010**

Convened by The Sierra Fund



MATERIALS, ATTENDEES AND NOTES

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Neighborhood Meeting on BLM Mine Cleanup Project May 11 in Nevada City

Published on May 4, 2010 - 3:06:06 PM

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By: Mike Thornton, Sierra Fund

May. 4, 2010 - A Bureau of Land Management (BLM) mine assessment and cleanup project in the Deer Creek area has been funded. The project involves assessing and cleaning up waste left over from historic mining activities on BLM lands.

The Sierra Fund (www.sierrafund.org) is convening a meeting for those interested in learning more about the project, particularly residents in the area of Champion Road, American Hill Road, Old Downieville Highway, Hirschman's Pond (at Cement Hill and Indian Flat) and Slate Creek Road.

This neighborhood informational meeting will take place Tuesday, May 11 at 7:30pm, downstairs in the Nevada City Veterans Hall, 415 N. Pine Street.

Representatives from BLM, the United States Geological Survey (USGS), and the State Water Resources Board Fund will be on hand to explain the project and answer questions.

This meeting is being hosted in conjunction with the Greater Champion Neighborhood Association and the Cement Hill Neighborhood Association.

BLM Mine Waste Assessment/Cleanup Project

NEIGHBORHOOD MEETING

May 11th, 7:30PM

Nevada City Veteran's Hall

415 N. Pine Street, Downstairs

Nevada City, CA

Snacks Provided

<http://yubanet.com/regional/Neighborhood-Meeting-on-BLM-Mine-Cleanup-Project-May-11-in-Nevada-City.php>

A NEIGHBORHOOD NOTICE

A Bureau of Land Management (BLM) project in the Deer Creek area has been funded. Neighbors on Champion Road, Indian Flat Road, American Hill Road, Old Downieville Highway, and Slate Creek Road may be interested.

This project will involve assessing and cleaning up historic mine waste materials on BLM lands. The project is starting now and continuing through the summer.

The Sierra Fund, a Nevada City-based community foundation, is working with BLM to facilitate community outreach for this project.

If you have questions, comments, or would like to hear more about this project, please attend the

INFORMATIONAL MEETING

**May 11, 2010, 7:30pm, Nevada City Veteran's Hall
415 N. Pine Street, Downstairs**

**This meeting will be hosted by The Sierra Fund, the Greater Champion Neighborhood Association and Cement Hill Neighborhood Association. Representatives from BLM will provide information on the project, and answer questions.
Snacks provided!**

For more information, please contact
Mike Thornton, The Sierra Fund's Community Organizer:
530-265-8454 x10 – mike.thornton@sierrafund.org
www.sierrafund.org

**Informational Meeting on
BLM Deer Creek Mine Waste Cleanup Project**

Wednesday May 11, 2010 – 7:30 PM
415 N. Pine Street, downstairs
Nevada City, CA

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*Hosted by:*  
The Sierra Fund (convener)  
Greater Cement Hill Neighborhood Association  
Greater Champion Neighborhood Association  
Bureau of Land Management

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7:15 pm Coffee, tea and cookies available - **PLEASE SIGN IN!**

7:30 pm Welcome, Goals and Introductions

Mike Thornton, The Sierra Fund, moderator

Eric Jorgensen, Chair, Greater Champion Neighborhood Association
Representative, Greater Cement Hill Neighborhood Association
William Haigh, Field Manager, BLM Mother Lode Field Office
Peter Graves, Environmental Protection Specialist, BLM Mother Lode
Field Office

7:45 pm Deer Creek Project Presentation

Peter Graves, BLM, moderator

Background and Overview

Peter Graves, BLM

Metal Contamination from Historical Mining in the Deer Creek
Watershed– Previous studies and planned work by USGS

Dr. Charles Alpers, USGS

Removal Site Inspection (RSI) Process

Tara Fitzgerald, Weston Solutions

Summary

The Sierra Fund

8:30 pm Public Question and Answer Time

Mike Thornton, moderator

Future Outreach

Final Words from BLM

9:00 p.m. Adjourn Community Forum

Mike Thornton

Attendees
BLM Deer Creek Meeting
May 11, 2010

Name	Affiliation
Elimar Green	
Danner Conn	
Fosten Wilson	
Richard Thomas	
Steve Enos	
Eric Jorgensen	
Sallee Allen	
Peter Graves	BLM
Samantha Leskie	Weston Solutions
Tara Fitzgerald	Weston Solutions
Simeon Caskey	American Rivers
Jacob Fleck	USGS
Mike Thornton	TSF
Kerry Morse	TSF
Carrie Monohan	TSF
Bill Haigh	BLM
Charlie Alpers	USGS
Jason Muir	Holdrege and Kull

**Neighborhood Meeting
BLM Project on Deer Creek**

Tuesday, May 11, 2010, 7:30 pm
Nevada City Veteran's Hall

Mike Thornton, TSF, opened meeting at 7:30 pm.

Eric Jorgensen, Chair of the Greater Champion Neighborhood Association welcomed people to the meeting, and expressed GCNA's willingness to get information about this project out to the neighborhood.

Bill Haigh, Field Manager of the Bureau of Land Management Mother Lode Field Office, expressed BLM's strong commitment to this project, and the fact that BLM has been working in this area for some time. BLM is working to address abandoned mines throughout the Sierra, and are pleased that they can focus stimulus funding on Deer Creek, which can be a model both of what can be done about mine tailings in the Sierra and also for getting different levels of government and community organizations working together.

Peter Graves, Environmental Protection Specialist at the BLM Mother Lode Field Office, gave a background of this project. BLM has been directed to look into sites like this, which are near to residences and developed areas. The lack of funding has prevented it in the past, but American Recovery and Reinvestment Act (ARRA) funds have made this possible.

Right now, BLM is beginning the CERCLA process to see what kind of contamination is affecting their lands in the Deer Creek Watershed. BLM owns a parcel of land on Deer Creek at Stocking Flat, and another parcel northwest of that (see map).

Mine waste on these parcels will be sampled, and they will also get sampling to get an idea of what kind of contamination is coming to these lands from upstream, and what kind of contamination is leaving their land. This is because mine contamination in this area is widespread, and so cleaning up one little piece of land is not effective because it could be re-contaminated from other sites in a short amount of time. The assessment needs to tell what the lasting effect of cleaning up the land would be.

CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act, and is also known as SuperFund. Steps under CERCLA include:

1. Removal Site Investigation (RSI) – Weston Solutions has been hired to do this, starting now May 2010.

2. Environmental Engineering and Cost Analysis (EE/CA) – This will start June 2010 and includes the Human Health Risk Assessment (HERA)

Dr. Charlie Alpers of the US Geological Survey (USGS) made a presentation about assessing the area for mercury.

USGS has been studying mercury in the Bear and Yuba watersheds for many years. The South Yuba and Deer Creek show some of the highest concentration of mercury in the Sierra, and this came from a high concentration of gold mining. There is a strong potential for mercury accumulation and bioaccumulation in the Deer Creek Watershed.

Charlie showed a good slide of a cartoon showing a pit lake with a clogged tunnel, leading to downstream creek and reservoir, and the mercury accumulation in different spots. This could be a good depiction of the scenario at Hirshman's Pond.

As a side note, there is other contamination in this area than mercury. There is arsenic that occurs naturally with gold, and so is present now in mining waste. Mining turned it into more bioavailable and dissolvable forms. DTSC is doing research on this now. So USGS is now analyzing samples for arsenic as well as other trace elements.

In 1999, USGS did a project to find mercury hotspots on BLM and Forest Service Lands. They also have worked with state agency partners and Nevada County RCD and Nevada Irrigation District. In this project, they measured fish in the Bear and Yuba, and found significant mercury contamination. It was also found that methylmercury increases as you go downstream. (Some data from these studies that has not been published will be released in a report soon.)

For THIS project, USGS has four tasks:

1. Biological sampling and analysis
2. Sediment sampling and analysis
3. Additional sediment sampling and analysis at Stocking Flat
4. Water quality sampling and analysis

USGS will do sampling at Hirshman's Pond with the cooperation of Nevada City, which owns that land. The Forest Service is still surveying the Woods Ravine area, so USGS is waiting. At Stocking Flat, USGS will sample sediment and mine waste on the upstream portion, and also Deer Creek up and downstream of the parcel.

Two sampling locations in Woods Ravine: at lower Champion Road and at Old Downieville Highway. USGS can sample right at the road crossing, but if they get permission from the land owners adjacent to these locations, they can do more

effective sampling, especially of the creek bed. Previous work by Friends of Deer Creek shows high mercury in Woods Ravine.

On Deer Creek, one sampling location has been chosen above Woods Ravine and three below: at the unfinished bridge, at Stocking Flat, and at the Little Deer Creek Lane road crossing. The upstream location is still below the Champion and Providence Mines. If there were more funding it would be useful to also sample upstream of these mines, to learn how much they are contributing, but since this information is not directly related to BLM lands.

The trails at Hirshman's Pond have previously been sampled for Title 22 metals, but this did not include sampling for mercury at the right levels for this study. USGS's Hirshman's Pond sampling will include fish that people would normally catch and of a legal size, because if nine fish of legal size are sampled then OEHHA have issue a site-specific consumption advisory if necessary. The target species is still to be determined—but will be based on what people normally catch there. Invertebrate and sediment samples will be taken on the shoreline at three sites, and fish from the pond. The sampling process is similar to work done elsewhere. They don't expect to see many trace metals at H's Pond but do expect some downstream of the mines on Deer Ck—at Stocking Flat there may be hydraulic mine waste as well as layers of hard rock tailings.

USGS's schedule is to sample through two seasons, ending September 2011, analyzing the data gathered in Fall 2010 and 2011, and producing a final report in 2012.

Tara Fitzgerald from Weston Solutions presented on the RSI process. Their work started today. The RSI:

1. Provides preliminary information about the site including historical information from file reviews and government agencies.
2. Documents sources of contamination at the site – contamination looked for is the Title 22 metals.

Sampling will take place in areas that have obviously been disturbed by mining, and also background samples of areas that have not been disturbed so the two can be compared. Most will be surface samples, but to look for methylmercury stream sediment and biota samples will be taken.

A Phase I report for Hirshman's Pond that was completed by Nevada City may be of use in the RSI.

Participants took a five minute break, and then Mike Thornton reconvened the meeting for a question and answer session.

Q: How far does mercury travel? If I'm downstream from a mine, do I have to worry about it affecting my well?

A: Mercury is not a ground water or drinking water issue, so you don't have to worry about it in your well. But because it travels with sediment, it can move downstream from mine sites. In general, if you are near to a mine site it is a good idea to get your well tested.

Q: If you find mercury on Deer Creek upstream from where I am living, what is the cleanup going to be like?

A: BLM has to look at all the assessment information to learn about how the mercury is there, and if it is, whether it is also a health hazard. We need all this information in hand before we can talk about whether there is going to be a cleanup, or what kind of cleanup it would be.

Q: If I give you permission to sample my property, does that also give you permission to do a cleanup there? Landowners would be more in favor of letting them sample if there is another decision making process before cleanup happens.

A: No. If you sign permission to do sampling, this includes biota and sediment sampling only. BLM is committed to gathering information at this point. A lot of sampling has already been done on Deer Creek that has not resulted in cleanup. Many more CERCLA steps have to be gone through before cleanup. If BLM decides to go down the cleanup path, there will be other meetings and outreach around that.

Q: How invasive is the sampling? (Big holes...?)

A: It is surface sampling, done with hand tools. No heavy equipment will be used. They are looking for the most recent deposits, from the surface to 6 inches deep. Only at Stocking Flat they may go a little deeper. For invertebrate sampling they stir up the creek a bit. They use a backpack shocker for fish.

Q: If I have mine tailings on my property from a mine next door which is discharging water, is sampling my property any use to this project?

A: This may be interesting depending on the location in relation to Hirshman's Pond, and whether the water goes there. Also depending on what kind of a tunnel it is—some kinds have the highest concentrations of

mercury. USGS is particularly interested in whether/where there were drainage tunnels from Hirschman's Pond to Woods Ravine.

Discussion: There is a lot of local information in the neighborhood around Hirshman's Pond about historic tunnels there. Some say they could walk to town in them. Others, 40 years ago, were warned not to dive deep into the pond because of interconnecting tunnels under the pond. There is a tunnel across from the pond on Highway 49.

Q: Is mercury a threat to swimmers?

A: No. Mercury is not a hazard to swimmers unless it is at a very high level.

Q: Along American Hill Road (used to be Lost Hill Road from hydraulic mine) going out to Old Downieville Hwy there is a series of drainages, that are private lands. Have they been sampled, and does anyone know the origin of them?

A: No, these are mysterious, may be from hydraulic mining there. They should be looked into.

Q: Are there particular sites on Deer Creek on private lands that would have high value to get samples from? The neighborhood association could make the contact.

A: Yes—near Champion and Providence mines, and also directly below the Stocking Flat property.

Q: What is the output for all the assessments?

A: There will be reports with all the assessment findings. All data will be available to the public either by request or online. Sometimes, BLM will set up a public information kiosk at the library or other public place in the community.

The RSI report will be done in about three months. The next phase is the EE/CA which includes cleanup alternatives, this will be started this year and complete by 2010. The final report will be on remediation (if necessary). USGS reports will also be finalized by 2012.

Q: Does the EE/CA include resoration/remediation?

A: It includes a look at alternatives for remediation, including stream restoration.

BLM Deer Creek Project Outline

Project:

BLM controls 600+ acres of unpatented land within the Nevada City Mining District and the Deer Creek watershed. This year, BLM and their contractors will assess toxic metals contamination contained within mine tailings on BLM land adjacent to Deer Creek. Sampling will give an idea of any contamination that is present on BLM property, as well as what is coming to this property from upstream, and what is leaving the property. Based on the results of the assessment, it may be decided that a cleanup is needed. In that case, different cleanup options will be considered depending on what is found in the assessment, and cleanup activities will take place in 2012.

Already Happening:

- 1. Weston Solutions is completing a Removal Site Investigation (RSI).** This process started mid-May and will be complete in about three months. The RSI:
 - Provides preliminary information about the site including historical information from file reviews and government agencies.
 - Documents sources of contamination at the site – contamination looked for is the Title 22 metals.

- 2. USGS is determining the level of contamination in water, sediment, soils and biota on public land adjacent to BLM land.**
 - USGS sampling locations are at Hirschman's Pond, two locations on Woods Ravine (at Old Downieville Highway and at Champion Road), and on BLM properties at Stocking Flat.
 - USGS will sample through two seasons, ending September 2011. They will analyze the data gathered in Fall 2010 and 2011, and produce a final report in 2012.

Will Happen This Year: TWO REPORTS

- 3. Human Health and Ecological Risk Assessment (HERA) will:**
 - Evaluate the potential risks posed by the various sources of chemicals present onsite and in Deer Creek for both humans and the environment
 - Address the entire site (Hirschman's Pond Woods Ravine, and Stocking Flat) and areas immediately adjacent to the discharge point from the site
 - This report will be completed in December 2010 and incorporated into the EE/CA

- 4. Engineering Evaluation/Cost Analysis (EE/CA) to determine:**
 - The nature of contamination
 - Any potential risks to human health and the environment
 - Different "Non-Time-Critical Removal Action" (cleanup) alternatives

Will Happen in 2011-2012:

- 5. If assessment shows that cleanup is needed, cleanup activities will take place in 2011-2012.**

Please see reverse side for schedule

BLM Deer Creek Project
Tentative Schedule for 2010-2012

May 11, 2010	The Sierra Fund and BLM hold Neighborhood Mtg
May 12	BLM holds Pre-bid site tour for contractors who will bid on doing the EE/CA and HERA
Mid May-September	USGS collects samples
Mid May - mid-Aug	Weston Solutions collects data for RSI and produces report
	BLM hires contractor to do EE/CA and HERA
	Contractor collects material sample and send to lab for analysis;
	Contractor mobilizes and stages in _____(location to be determined by local BLM Representative);
	Arrive on-site on a date to be determined;
	Conduct EE/CA, Community Relations and HERA for the site;
	Submit samples to EPA approved lab for analysis;
	Submit draft Reports within 30 days after the receipt of lab results
Dec 2010	Finalize HERA report
Jan 2011	Finalize EE/CA report
Mid-May - Sept 2011	USGS collects samples
Sept - Dec 2011	USGS produces final report
Sept 2011 – 2012	Cleanup actions, if determined necessary