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Miners Foundry, Nevada City, California

COMMUNITY SUMMIT ACTIVITY NOTES
Tuesday, November 9, 2010

The "Community Summit" was the culminating activity of The Sierra Fund's Reclaiming the Sierra Conference. After two days of workshop presentations and discussions among experts, all conference participants gathered into one room to offer their best ideas and priorities for addressing the problem of legacy mining toxins in the Sierra.

Participants broke into three groups, and had 20 minutes to discuss each of the topics of concern:

1. Human Health
2. Science and Technology
3. Outreach
4. Public Policy

For each topic, a series of questions was asked to stimulate ideas:

- Do you have new ideas for our Committee?
- Do you have any cautionary tales or words of warning ?
- Is there additional data or information that we need, or that you need?
- What are your suggestions for priority actions by our Committee?
- Would you be willing to join our Committee?

The following notes reflect ideas and concerns raised during this dynamic session. Notes taken reflect the best effort to capture what was offered by conference participants. They are presented here in order to encourage further discussion about these matters. These notes do not necessarily reflect the views of The Sierra Fund staff, board or funders.

1. HEALTH

Community's Ideas

- Model surgeon general's warning for mercury
- We need to be able to post signs at safe areas, as well as contaminated areas to combat the assumption that areas that aren't posted are clean and safe.
- iPhone app telling about mercury or dust dangers
- The Nursing Association should pass a resolution about mercury awareness. Nurses often spend more time with patients than doctors.
- Spread the word about mercury by starting with medical schools. Physicians need to be able to get a good social history.
- Build environmental health history into intake forms that are used across the country. There is an opportunity for this because electronic forms are coming in.
- Reach out to midwifes, nurses and nutritionists
- Pursue posting signs within a broader education strategy
- Start small campaign of NOA signs/stickers around Marrall Mine
- Look into possibility of studying blood samples from babies over last 20 yrs—who has money for research, and who is legally able to do this?
- Look into lead protocol to understand how they did it, and how we can dovetail/use as a model for mercury so we don't have to create a whole new program
- Translators for signs for fisherman, women in families (we need more non-English language signs)
- Involvement of Public Health Officer in county; if they don't know this is an issue, then they don't have a mechanism to work with doctors
- Ob-gyn give out warnings to pregnant women
- Handout immunization information about this
- Anywhere that we give out aid to people, have notifications about health warnings of mercury
- Simplified handouts with anecdotal examples to educate the public, significant studies, use case studies to communicate to people
- More education with doctors
- In schools you have programs that say no to drugs, so we need "say no to lots of fish"
- Public messages: headline that these health effects are related back to mining
- Fish markets—we don't want to put them out of business: show there are fish you can serve that won't hurt us
- Canned fish industry, need to have warnings; if they won't, have supermarkets use signs
- Campaign to promote healthy fish—and healthy other things
- Mobile clinics for testing
- Self-reporting websites to get community involved (e.g., blood test results) to provide data, with questionnaire (behavioral)

- Find out the baseline. What is already in place? CDCs, county health officers, find out statewide averages
- Outreach to military doctors. They have a transient patient base.
- Activist art (radical art) around Asbestos dust…hand out masks ---- to attract media attention
- Identify sub-sets of people who are likely to have higher impacts (for example, as a result of their profession).
- Test groundwater sources … property owners need to know what they're buying
- Website questionnaire
- Mail-in hair samples and soil samples
- Prove that we have elevated levels of toxins so that we can get money to remediate
- Something easy to digest and accessible for people without scaring them. Handouts, grocery sack bulletins, spots on tv, public health department warnings, accessing all medical advisors.
- Experience from dealing with cholesterol includes cookbooks, handouts, bumper sticker. Give to doctors to give patients—because they don't have time to go over this with them.
- Reach out to school lunch programs, with a healthy fish program.
- Make an animated film about mercury and how it gets into your body, including the information Dr. Hightower covered in her keynote. This could be checked out at the library or played in the doctor's office waiting room. This could be aimed at not just doctors but other groups—make film and tour it, make it a social thing. Tour to schools, churches, community groups. Include a lesson plan for teachers.
- Connect with medical students
- Messages: "Sardines not tuna" "rotate your poisons!"
- Need to start somewhere—collecting some data is a good place to start. Do community-wide sampling—this would make press, be an educational initiative within the community. This establishes a baseline to use in outreach programs. Correlate sampling with questions, zip codes. Get federal money for study? Tie in with a research project—get a medical school to assist.
- Could perform random testing of volunteers—they could get the results if they want. Target high risk groups

<u>Cautionary Tales/Words of Warning</u>

- Study done to determine effectiveness of seat belt warnings. Spies watched to see who had come to event wearing seatbelts and how many of those people left wearing seatbelts. Follow-up on what people are doing!
- Blanket terms are used. Thresholds are important to know about.

- Would a free test for mercury or selenium impact someone's insurance as a pre-condition?
- How to tell the source of mercury--Don't jump to conclusions.
- Hair test resulted in 1300 ppm of aluminum. How to tell the source? There was no way to find out where it came from.
- Don't try to make a pig sing—there are political aspects of the issue. If you try to do it through the political process, you'll have to have a lot more support than what's in this room [community process]
- People hate it when the government tells them what to do.
- Don't use acronyms at public presentations
- Don't focus on only negatives. Provide alternatives.
- Kitchen table meetings are more effective often than big events.
- Be careful not to create a scare, panic about mercury; don't create backlash
- Don't get so focused on mercury, there are other constituents; and don't just focus on fish
- Don't alienate mining companies; approach in way that you try to limit what you eat now and clean up what is causing it; but rather than point fingers, try to engage the industry
- Don't blame history
- Be aware of legal implications for land owners who want to clean up and develop property—there are a lot of actions that can create potential legal backlash against us
- Every drug rep wants us to put handout on counter.

Information and Resources You Can Share, or that You Want?

- Good centralized clearinghouse for best available science
- MSDS sheets
- We need a full picture of what the native tribes had…what the plants were here so that we can re-plant and restore wildlife, so that we can promote healing
- Baseline data gathered about what the community knows, as a whole, about the toxic effects of mining. The knowledge of mining ponds as a toxic thing should be shared more widely.
- CA's First 5
- Get information out to the public where you can go to be tested for mercury; cost, is it covered by insurance?

- Are there mobile clinics?
- Who puts up warning signs/posting?
- Who do you call if it looks like you have mercury on your property? How do you get more information as a private property owner, general public
- What other plants, foods do we need to avoid to avoid all toxins
- For tribes, use CIEA handouts on fish advisories.
- Support the legislative proposal on labeling for mercury in fish– project of the Turtle Island Institute
- California Department of Public Health paper "What is a Healthy Community?": How to create community environments that make the healthy choice the easy and affordable choice, and remove involuntary exposure to toxins.

2. SCIENCE AND TECHNOLOGY

What you want to know more about?

- How to get water tested for heavy metals
- Hot spots: highest priority areas, sites
- Where is the money going to come from to work on this, and how much money do we need?
- Need online data that relates to abandoned mines
- Looking at the kind of mine it is, do we know how to remediate?
- Is there an inventory in the county of abandoned mines and what kind they are?
- How does agricultural use of water impact toxins in food sources, and does it affect crops?
- More info about different types of arsenic, and how much it affects us
- What happens when fire occurs here—how relate to water quality and abandoned mines
- Explanation of Good Samaritan law
- How does remediation technology work? What are standards of mercury, levels and thresholds in municipal water? Allowable, safe?
- We know how to clean up mine sites. We need to work on ideas of how to remediate creeks. Control mercury contamination and damage downstream.
- More how mercury affects other species in the ecosystem
- More information about other mining toxins, not just mercury

Community's Ideas about Science and Tech

- Use biotechnology to determine levels of mercury and source
- "Mercury coordinator" at Cal/EPA
- Check whether agencies have standardized process for fish data collection to make sure it meets fish advisory requirements. (if not, advocate for this)
- Suction dredging --- We need more information. Is it good or bad? Is it better to leave it in place or pull it out of the waterways?
- What are the symptoms of mercury toxicity? What are the warning signs? Need more information shared with the public.

- Quantitative assessment of mercury levels…biosentinal research and monitoring
- What is the timeframe for solving these problems?
- Methylmercury is the problem for human health. What are the bacteria that are breaking the mercury down, can we do something with that bacteria to stop methylation process?
- Provide information specific to what's toxic for kids
- There should be worksheets on BMPs when approaching landowners who would need this information
- Get youth involved in real-life science; potential long-term in job market
- Curriculum development in schools
- Central place where you could get the fish you catch tested. Coordinate with people doing the fishing. Source of data
- A technology that could be applied to find out where the pockets of mercury are
- Voluntary cleanups could work on spots that aren't necessarily hotspots.
- Make a Toolkit similar to the SNA's Climate Change Tool Kit
- One-stop clearing house
- Science needs to support policy, and technology needs to make projects better!
- We need a way of finding technology providers that are outside the main stream; help entrepreneurs validate technology; a way to quickly evaluate technologies; independent 3rd party review. Politics should not be involved in these decisions.
- Science should start with baseline of what already exists so we don't replicate—look into the Center for Disease Control, County Health Offices, infant mortality.
- We need good baseline data. Look into Edgewood Arsenal, and John H Thompson.
- Create mercury traps for mercury that is put back into suspension.
- Create a Wiki-forum – an online page for every abandoned mine, including photos, site history, information on the mine. This will help show information gaps. There could be a public version and an agency version. Take data that's already generated, make it public data. Then start adding to it.
- Consider how Green Technology applies to this committee: look for long term economically sustainable technologies—think about how to extract something valuable, and make a profitable business from reclamation.
- Create a collection depot for heavy metals so they can be reused or properly disposed of.

- Create a "Mercury X Prize" or AMD X Prize—a technology competition for best cleanup methods.
- Create a mercury hazard sign, like the fire hazard meter.
- Create technology for remedial actions for the creeks and streams downstream—not just AT the mine site.

Cautionary Tales

- Share information on methodology on what has worked. We need a little bit of hope. Hopelessness will be damaging.
- Timeline—be clear about whether we are fixing the issue for a short period of time or is it a long term solution
- Communicate about the issues in a way that the public can understand
- Find people who can bridge between science/technology and the public
- Be prepared for non-scientific thinking, rejection of issues—but realize it may not be possible to find common ground and how to deal with it
- Get experts to work together early and often
- Don't leave industry out of developing new technologies
- Be clear about who is being paid and why
- Keep efforts solution-oriented; not just communication about bad news; how remediation creates new jobs, for example
- How do we fund remediation projects?
- As we learned from an example in Colorado, people can be overwhelmed with so many problem sites. Assessment allowed them to understand what was happening and prioritize effectively. We need a strategic watershed priority plan.
- Follow executive order 1266 where funding is involved.

Additional Info/Resources

- Support a special medium that people can put Environmental toxicology and pollution data into—create visual, geographic ways to display it. One model for this is, SWIM – Sacramento River info model. There are statewide standards on doing this.
- The East Coast and coal country is decades ahead of the West on addressing abandoned mines. There are tools available such as Acid Mine Drainage treatment, downloadable devices.
- Look into the Tahoe TMDL and project erosion prediction model (Dr. Reuter) that includes custom future climates.

- Facilitate an East/West dialog. Learn about: Post doctorate students from Davis go to the Wisconsin Department on Limnology; VA Electric Power; Treatment of AMD at coal mines; University of Illinois and Kikapoo State Park.

What are the Priority Actions for the next year or two?

- Establish guidelines or "road map" for private landowners
- Communicate with community leaders as to how remediation translates into jobs, economic growth for our area—and by extension improves local environment and human health
- Learn the degree of risk of contaminants, relative to one another (risk assessment of different contaminants of concern)
- Overall state strategy to help us put all data together and then iteratively determine what the next step is. Determine, as a state, the most important focus
- Identify human health risk from arsenic
- Work with the EPA so that regions across the country are coordinated instead of competing.
- Greater web presence (leads to more volunteers and stewardship)
- Link to climate change issues, since the end goals would be aligned. Remediate a site that is a meadow that is re-vegetated and possibly mitigates climate change

3. **OUTREACH -** Community's Ideas, Suggestions and Priorities

General Public Education

- Better public outreach: PSA that are free, TV, NPR, link, most gov't agencies has free public access link. Model: PSA, link to something specific, go on our website.
- Use everybody else's technology to link to our outreach program.
- Make a point to reach out to the nay-sayers and those who aren't in the choir. Those who have been against funding this stuff. Put it out to newspapers and readership you wouldn't necessarily want.
- Get Amy Goodman to do a show on this.
- Make it so attractive that people want to know about it—not so scary.
- Present mercury testing on urban waters.
- Pursue a strategic and coordinated effort that will make an impact at all levels within a certain timeframe. And then follow up with pursuing a lot of funding!

Jobs and Economy

- Build on the community's positive response to the Job Training grant suggestion
- Get federal mine cleanup grantees to hire local! - We need to figure out the process for this
- Convene "Solution Task Force" for area developers—to present all the "what if" scenarios and make all the necessary contacts for everyone

Targeted Audiences

A. Education

- Talk to mining schools about how to define/use "green mining"
- Develop Curriculum in elementary schools

B. Conservation

- Make clear the distinction between what is the government's job in this, and what is the role of nonprofits – where is the line?

- Pursue Marall Mine as a part of the "poster child" strategy of getting gov't to do its job
- Find a strategy to get organizations acquiring land to be mindful – look up some recent acquisitions with public money and see how much assessment was done; see what the state requires when they give money; see whether the TPL, as middleman, has liability
- See if it's a good strategy to have the middleman in land deals serve a cleanup role as a Good Samaritan solution to this problem

C. Food

- Outreach to cooking schools and chef schools—those who prepare food.
- Have "mercury safe" label for fish to promote the alternative—get this kind of info on menus.

D. Downstream Communities

- Since water goes to LA – prove that the Sierra is important since it's the source of water. Some funding LA gets for its water district must come here. They send us money, we send them clean water.
- Incentive to clean up pollution upstream "pollution trading" –
- Political process requires both authorization and appropriation to get something done. The people who benefit should be the ones who pay. But messaging needs to be understandable so they KNOW that they benefit!

E. Other

- Refine language – "orphan" mine = no PRP
- Bring in the public to help determine site use
- Get a better understanding of the public right to know
- Reality of what the Maidu believe. Earth needs to heal. And that the economy is not separate from the earth.
- Holistic—mental emotional and spiritual. 5th committee to deal with that?

Info and Resources

- DWR has a plan to rework gold fields in the Oroville area. Will have to rework tailings piles—make sure they coordinate with Combie project
- Look at the City of Seattle as model for funding upstream restoration. They do pay for restoration projects in upper watershed.
- Center for Science in the Public Interest—they should be working on a mercury issue.

Volunteer Opportunities

- Provide more information on what volunteers would do/could do
- Talk to hiking groups
- Badges for volunteers
- Flyfisherman contacts

4. POLICY

Funding

- Gold is a stable fee resource-- put an excise tax on gold when it is purchased as jewelry.
- Publish a "People's Budget" for mining toxins – for agencies that are mandated to work on this but don't have the funding

Policy Change

- Fix the fact that the Water Board has made rules too strict to be met, and so now grants exemptions
- Treat mine problems, like acid mine drainage more like stormwater – regulate under section 402 (not 404) – new class of federal permits, similar to what Udall proposed
- Update "beneficial uses" to take into account mining contamination
- Make nation-wide permit for development in mine-scarred lands so each developer doesn't have to go through the process individually
- Advoacte for EPA regions to share scientific data/studies so all actions based on the same research
- Nationwide permit process (not just site specific)
- If I take my kid fishing at Scotts Flat, how do I know what is safe to eat? We need to monitor lakes, post signs. Do it at every lake.
- Restaurants and stores need to label fish with mercury in it! People need to be informed that mercury is the #2 most toxic substance in the world. This could be moved forward with a coalition of mothers, doctors, environmentalists.

Priorities

- Prioritize sites for cleanup
- Introduce posting of NOA and general fish advisory at federal facilities cleanup dialog
- Contact the Brown Administration to prioritize DTSC Arsenic study
- Force fish advisories to come out on all mercury impacted waterways. Data must come out—fish tested, work with regional board and OEHHA about how to do that.
- Mercury has high priority because it is connected to the indigenous people, and the genocide that they experienced.

Lessons, Examples, Resources

- Consider parallel lessons from the experience with DDT.
- National Historic Preservation Act: Dictates that the Forest Service employ a Heritage Resource Specialist to record archeological sites. This process treats sites as though they were eligible until proved not. Streamline so that all processes can be coordinated and prevent procedural slow-down. Information is collected but it is confidential.
- This is not an issue that's well known or understood—we need to think strategically about how to roll out excellent ideas. We don't have a large understanding of the problem in the State Capitol. Ex: Silent Spring that did education for pesticides. Use legislation and policymaking to be part of effort. Be realistic about what you bite off—something small but that you can use as a campaign and build on.
- We are close with the arsenic study and what it does to human health risk—use this as an accomplishment, as something that has potential to be solved, then move on to harder things like mercury.
- We need a regional approach to the situation. How do we get elected officials to participate, agree…?
- If you get involved with elected officials, they'll get involved with you. Create relationships with them.
- Butte Co General Plan should be looked at as a working model.