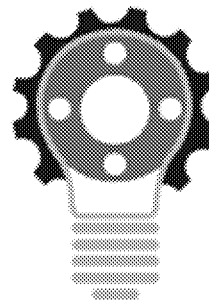


SCIENCE & INNOVATION CENTER



Supporting the Evolution of Hardrock Mining and Reclamation in the Rocky Mountain West

April 11, 2018

Steering Committee Conference Call

In attendance: Ryan Bennett, Resource Partners, Mark Rudolph, CDPHE, Rob Milofsky, FLC, Bob Arnott, Strategic Environmental Analysis, Rob Runkel, USGS, Kirk Nordstrom, USGS, Jason Willis, TU, Devon Horntvedt, Newmont, Krista Doebbler, BLM, Michelle Hamilton, Town of Silverton, Peter Butler and Bill Simmons, ARSG, Marcie Bidwell, Page Buono and Shular Roberts, MSI and Paul Orbuch, MSI Facilitator

Summary of Outcomes from Call:

- Business Plan/Roadmap subgroup formed
- Science and Innovation Center Prospectus to be updated and revised
- MSI to develop a spreadsheet of funding options
- Summary/talking points document to be developed from Questionnaire responses
- Some Steering Committee members to attend Good Sam and Innovation Week events at School of Mines on April 26.
- Next Steering Committee call TBD, likely to be review of Business Plan/Roadmap
- Steering Committee panel and dinner at MSI Innovation Expo in Silverton, August 28-30

Questionnaire Response Review:

- Range of takeaways and desire for more time to review. MSI to develop summary and talking points for Steering Committee use.
- Raised Rocky Mountain Biological Laboratory as a model. <http://www.rmbl.org/>

New v. Legacy Mine Issue:

- Steering Committee consensus that new technologies used to address discharges at new or legacy mines are closely related and can overlap in many cases. Meeting today's new mining challenge can be the same as addressing tomorrow legacy mine challenge (and vice versa) from a technology standpoint.
- Science and Innovation Center should look to demonstrate value to society by helping to develop mine waste solutions, whether new or legacy related.
- Make sure to consider technology and approaches that can reduce some mine waste even if they cannot reduce all mine waste. Some improvement in water quality/partial compliance is to be valued as regulators can require removal of all metals and the last 10-20% of clean ups can be difficult and expensive to achieve.
- Be sure to understand what remediation has worked in the past, what has not and why.

Business Plan/Roadmap Discussion

- Subgroup formed to develop internal guidance report specifics that could include the following elements: objectives, concept/need statement, areas of service, competitiveness analysis, governance, financial plan, year one objectives, rolling five year objectives, and strengths-weaknesses-opportunities-threats (SWOT analysis).
- Potential for a planning grant to fund report from San Juan County/Silverton
- Aim to develop document over the next four months with input and review opportunities for entire Steering Committee along the way.
- Initial list of Steering Committee subgroup volunteers includes Bob Arnott, Michelle Hamilton, Devon Horntvedt, and Marci Bidwell.

MSI's Silverton Innovation Expo – August 28-30

- Looking for input, ideas and participation from Steering Committee members
- See <http://www.mountainstudies.org/expo>
- Panel of attending Steering Committee to give update and take feedback on Center
- Steering Committee Dinner where we can get into detail

Bonita Peak Mining District Innovative Technologies <https://semspub.epa.gov/work/08/100003642.pdf>

- Already 20 inquires on using new EPA procedure to identify alternatives to lime treatment process
- Is there an opportunity for EPA to review this process at MSI Innovation Expo?

MSI Fundraising Report

- Taking recommendations from memo, looking into REDI planning grant, looking for opportunities to apply to foundations or private foundations, Community Solutions Grant, LORE Foundation
- MSI looking for a staff coordinator or consultant for planning process - \$50- \$120 range for 1 year to 18 months, Expo, start-up weekends and shepherd business plan, and coordinating volunteers.

Additional Resources/Events Referenced:

- San Juan Mining & Reclamation Conference (Creed): <http://www.mountainstudies.org/events/sjmrc2018>
- MSI Innovation Expo: <http://www.mountainstudies.org/expo>
- Bonita Peak Mining District Innovative Technologies: <https://semspub.epa.gov/work/08/100003642.pdf>
- School of Mines Innovation Week <https://calendar.mines.edu/event/innovation-week-at-mines/>
- Good Samaritan Protection to Enhance Abandoned Mine Land Cleanup—Finding a Path Forward http://mmsa.net/pdfs/Announcement_DrftFnl_02-13-18.pdf