Information and Talking Points Butte Health

Remedy:

- The agreement in principle provides for a comprehensive cleanup that goes well beyond what EPA could require of Atlantic Richfield under an administrative order, including additional removal of contaminated soil and the addition of water features in the upper Silver Bow Creek corridor.
- The vision prepared by the Restore Our Creek Coalition was integral to helping the negotiating parties decide upon end land uses for upper Silver Bow Creek that go a long way toward meeting that vision.
- The remedy will be comprehensive, effective, and protective of public health and the environment.
- Because elements of the remedy require perpetual operation and maintenance, EPA will continue to evaluate the protectiveness of the remedy through oversight and five-year reviews, and will ensure that any issues identified through that oversight and periodic review are addressed and corrected.

Health Studies:

- As part of the remedy, EPA requires the potentially responsible parties (Atlantic Richfield Company and Butte-Silver Bow County) to perform a public health study once every five years.
- The first such study was completed in 2014.
- For each health study, a work group made up of public health representatives from EPA, ATSDR, Butte City-County Health Department, Montana Department of Public Health and Human Services (DPHHS), local physicians, Citizens' Technical Environmental Committee (CTEC) and members of the public evaluate data from the Butte Residential Metals Abatement Program (blood lead data, for example) and any other information, studies, and reports to determine the effectiveness of the remedy and identify any new issues or concerns.
- The results of the public health studies are incorporated into EPA's five-year reviews and protectiveness determinations.
- EPA bases its cleanup levels on the Integrated Risk Information System (IRIS), and evaluates any updates to toxicological information as part of the five-year review process.

Greeley Neighborhood Concerns:

- Representatives of the Greeley neighborhood have expressed concerns about potential impacts both from the active mining work and from Superfund contaminants, particularly in air and stormwater.
- EPA is currently coordinating with DEQ air quality division, DEQ Hard Rock Bureau, and the Greeley Neighborhood to address air concerns associated with the area.
- EPA's contractor for the West Side Soils Operable Unit 13 Remedial Investigation and Feasibility Study will begin collecting samples in the Spring of 2019 to fill data gaps for soil and stormwater.
- EPA is currently proposing to expand the RMAP, to collect soil samples in the area (attics are currently sampled and abated if needed).

{The information below was provided by Nikia in the first draft of these talking points. I leave the information in here in case there is more you would like to include in the points above. We can remove them from the final version of the talking points.}

Past Health Studies:

- ATSDR Health Consultation Exposure Investigation, July 18 2001 – **Conclusion**: Urine arsenic levels: All 25 urine arsenic levels were below the detection limit of 10 ug/L which is well below the level of health concern of ug/L or 50 ug arsenic/G creatinine. The exposure investigation had good community participation. All blood lead levels and urine arsenic levels were well below the levels of health concern.

- Silver Bow Creek/Butte Area NPL Site Butte Priority Soils Operable Unit Granite Mountain Area (GMA) Air Monitoring and Sampling and Analysis Plan (SAP) (BPSOU PRP Group, 2003), - **Conclusion**: "Based on the eight months of analytical data indicating that there have been no exceedances of the ambient air quality standards, EPA will require no further air sampling of this area. "

- 2011 BSB Health Needs Assessment

- 2012 Silver Bow County Cancer study (MT DHHS)

- 2014 Butte-Silver Bow July 2014 Public Health Study (BSB Health Dept.)

Residential Metals Abatement Program (RMAP)

a. the Multi-Pathway Residential Metals Abatement Program ("Program") Plan specifies that Butte-Silver Bow will periodically evaluate biomonitoring data approaches and data compiled under the Program every 5 years for a period of 30 years

b. The evaluation of the RMAP medical monitoring program and associated data is conducted to assess the effectiveness of the program. Blood lead data are the focus because lead is a primary chemical of concern related to Superfund activities and because the utility of blood lead data in assessing exposures is well established. There is also a wealth of information about how various sources, in addition to Superfund sources, affect blood lead levels. Medical monitoring data on blood lead levels provides an integrated measure of lead exposure from all sources. Analysis of the blood lead data was the focus of the 2014 evaluation.

c. Currently, the second evaluation focuses on disease rate data for Butte to provide a second line of investigation to identify health outcomes that could possibly have a link to Superfund or other community issues. This evaluation will also provide an update to the analysis included in the 2014 evaluation.

d. The working group is currently conducting a literature review of exposure studies focused on lead, arsenic, and/or mercury in soil and/or dust that have been published since 2014.

e. The working group is currently conducting a literature review of epidemiology studies that examine the relationship between exposures to arsenic, lead and/or mercury in soil and/or dust and the diseases found to have increased incidence or mortality in Butte. (specifically looking at McDermott's study and will develop a letter to the Journal, where McDermott will have a chance to comment before the work groups comments are published)

f. The RMAP attic dust program was expanded in 2011 to include areas outside of BPSOU. Currently EPA is looking to expand the entire program including soils similar to the attic dust expansion.

Health Study Work Group Members

The Butte Superfund Health Study & Biomonitoring Working Group (Working Group) is comprised of citizens, scientists and public health officials whose are committed to furthering the health and well-being of Butte citizens (EPA, ATSDR, Montana State Health and Environmental officials, Montana Tech Faculty and concerned citizens of Butte)

- Butte Silver Bow (BSB) County – Karen Sullivan, Eric Hassler, Lori Stenson, Karen Maloughney, Julia Crane, and John Rolich
- Montana Department of Public Health and Human Services (DPHHS) – Laura Williamson (and Dr. Matthew Ferguson if a need for additional toxicology input is identified, and Heather Zimmerman)
- EPA Region 8 – Nikia Greene, Dr. Charlie Partridge
- Montana Department of Environmental Quality (MDEQ) – Daryl Reed
- Agency for Toxic Substances and Disease Registry (ATSDR) – Dr. Michelle Watters
- Community Technical Advisory Group Representative – Joe Griffin, Dr. Bill Macgregor, Dr. Steve Ackerlund, Dr. John Ray, David Hutchins
- Atlantic Richfield (AR) – Josh Bryson, Loren Brumeister
- AR Technical Consultants – Ramboll (Dr. Rosalind Schoof, Cynthia Van Landingham) and Don Booth
- Community Partners – Dr. Seth Cornell

Current Community Concerns and Requests:

- Mary Kay Craig has requested risk communication about heavy metals in Butte. Specifically, for stormwater and issues associated with the Greeley Neighborhood.

    - **Talking Point**: EPA is currently working to provide this request by reviewing the metals data in stormwater and basins throughout Butte, and developing a techmemo and risk communication fact sheet, specific to any risks associated with stormwater.
- Greeley Neighborhood has written a letter to EPA and DEQ requesting a new Operable Unit, and Dr. Katie Hailer will make a presentation on her published findings relative to the heavy metals laden dust and its possible effects on human health air quality in the neighborhood on October 30th and again on Nov. 14. To the Council of Commissioners.
    - **Talking Point**: EPA is currently coordinating with DEQ air quality division, DEQ Hard Rock Bureau, and the Greeley Neighborhood to address concerns associated with the area. Specifically, under Superfund a work assignment is in place to begin collecting samples in the Spring of 2019, to fill data gaps and currently we are proposing to expand the RMAP, to collect soil samples in the area (attics are currently sampled and abated if needed). EPA will attend the Nov. 14 meeting and continue to engage and communicate efforts being made to address their concerns.
- John Ray is a part of the health study work group and is currently providing productive feedback as a member and activist.
- Dr. McDermott