EMERGENCY ACTION PLAN
FOR THE UNCONTROLLED RELEASE OF MINE IMPACTED WATER
STANDARD MINE SUPERFUND SITE

FOR OFFICIAL USE ONLY
DO NOT RELEASE
EMERGENCY ACTION PLAN
FOR THE UNCONTROLLED RELEASE OF MINE IMPACTED WATER
STANDARD MINESUPERFUND SITE
GUNNISON COUNTY, CO

HDR ENGINEERING, INC.
1670 Broadway, Suite 3400
Denver, Colorado 80202

Submittal Date __________
EMERGENCY ACTION PLAN FOR THE UNCONTROLLED RELEASE OF MINE IMPACTED WATER
STANDARD MINE SUPERFUND SITE
REMEDIAL ACTION
ADIT REHABILITATION LEVEL 1 AND 3
GUNNISON COUNTY, COLORADO

EPA WORK ASSIGNMENT NUMBER: 030-RARA-08JM
EPA CONTRACT NUMBER: EP-W-09-009
Prepared by: HDR
APRIL 2017

Approved:  
James Hanley, Contracting Officer’s Representative, EPA Region 8  
Date: 8-Jun-17

Approved:  
Christina Progress, Remedial Project Manager, EPA Region 8
Date: __________

Approved:  
Brad Williams, Program Manager, HDR
Date: __________

Approved:  
Joe Shields, Project Manager, HDR
Date: __________

Approved:  
John Ballegeer, Project Engineer, HDR
Date: __________

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SECTION I

LOW CONSEQUENCE

NOTIFICATION FLOWCHART AND MESSAGING

(Contact Information)
Low Consequence Notification Flowchart

Rev. April 2017

1. Emergency Condition
   2. Observer
   3. EPA Project Manager
      James Harley
      303-312-6725 (o)
      720-584-2576 (c)
      Alternate:
      Christina Prosser
      303-312-5009 (o)
      720-951-0661 (m)

   4. HDR On-Site Project Monitor
      Travis Snyder
      720-938-8965 (c)

   5. HWCC On-Site Superintendent
      TBD

   6. Alternate:
      On-Site Engineer
      Jacob Greenman

   7. HDR Project Manager
      Joe Shields
      402-399-4833 (o)
      402-305-1118 (c)

   8. EPA Region 8 Superfund Director
      Bill Murray
      720-951-6969 (c)

   9. EPA Region 8 Superfund Unit Chief
      Steve Wharton
      303-264-8038 (c)

10. CDPHE – Superfund
    Rose Davies
    303-594-3362 (o)
    Alternate:
    Mark Rudolph
    303-592-3311 (o)
    303-316-2179 (c)
Low Consequence Indicators

- Mine Discharge in Excess of Historical Thresholds
- Abnormal Monitoring Data
- A minor release of mine impacted water in any quantity

Low Consequence Pre-Scripted Messages

<table>
<thead>
<tr>
<th>POINT OF CONTACT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name &amp; Title:</td>
</tr>
<tr>
<td>Agency/Office Name:</td>
</tr>
<tr>
<td>Phone No:</td>
</tr>
<tr>
<td>Email address:</td>
</tr>
</tbody>
</table>

EMERGENCY INCIDENT SCRIPT

Those on the EAP Emergency Notification Call listing are being notified with this pre-scripted message for the Emergency Response Level being declared:

The Environmental Protection Agency discovered an unusual situation on _____________________________ (date/time) at the Standard Mine Superfund Site.

<table>
<thead>
<tr>
<th>EC</th>
<th>Message</th>
<th>Date &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ We have activated the Emergency Action Plan and declared an (Abnormal Reading, Abnormal Observation, or Low Consequence Release) has occurred.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Low Consequence Response: At this time, ______ situation is controlled by the EPA operations staff on site at Standard Mine. It is always our priority to minimize impact on the environment and the surrounding communities of Crested Butte and Mount Crested Butte. If the situation changes we will notify Town of Crested Butte (Rodney Due) and Gunnison County.</td>
<td></td>
</tr>
<tr>
<td>INCIDENT TERMINATION</td>
<td>□ The incident has been terminated per the EPA. There is no longer a threat to property or the environment downstream of the mine site.</td>
<td></td>
</tr>
</tbody>
</table>
SECTION II

MEDIUM CONSEQUENCE

NOTIFICATION FLOWCHART AND MESSAGING
Medium Consequence Notification Flowchart

Observer to directly contact Gunnison County if On-Site Project Monitor not available or if time for verification does not exist

Emergency Condition

HDR On-Site Project Monitor
Travis Snyder
720-838-8965 (c)

Gunnison County Dispatch
970-641-8200 Ext 1

Crested Butte Fire Department Dispatch

Crested Butte Marshall

Gunnison County Sheriff

Downstream Water Users

Colorado Dept. of Emergency Management

Other County Departments

Other State Departments

Div. of Homeland Security & Emergency Management

Crested Butte Water Plant
David Jelinek
970-349-8855 (e)
970-209-8629 (c)
970-209-1439 (on-call)

Crested Butte Town Manager
Bill Crank

Crested Butte City Council

Gunnison County Fire

Mount Crested Butte Police
Nate Stepanek

Gunnison County Emergency Manager
Scott Morrill

Alternate: Bobbie Lucero

EPA Region 8 CCR
Katherine Jenkins
303-312-6591 (e)
720-305-642 (c)

USFS
Linda Lanham
970-674-6633 (e)

Alternate: Tara Tall
720-425-4122 (c)

HDR Project Manager
Joe Shellis
403-399-4833 (c)
402-355-1118 (c)

Alternate: On-Site Engineer
Jacob Greenman

EPA Region 8 Superfund
Unit Chief
Steve Warton
303-264-8038 (c)

EPA Region 8 Superfund
Director
Bill Murray
720-951-0969 (c)

EPA On-Site Coordinator
On-Call OSC
303-283-1986 (on-call desk)

CDPHE – Superfund
Ross Davis
303-693-3362 (e)

Alternate:
Mark Rudolph
303-692-3311 (e)
303-616-2179 (c)

EPA Project Manager
James Hanley
303-312-6725 (e)
720-584-2579 (c)

Alternate:
Christina Progress
303-312-6009 (e)
720-951-0961 (m)

Observation

Gunnison County
970-249-5336 (e)
970-209-1455 (c)

Online Water Users
Medium Consequence Indicators

- rising discharge rates are approaching the treatment capacity of the project
- unanticipated releases are occurring at rates that are visible in Elk Creek and may be visible in Coal Creek

Medium Consequence Pre-Scripted Messages

<table>
<thead>
<tr>
<th>Point of Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name &amp; Title: Owner/Operator</td>
</tr>
<tr>
<td>Agency/Office Name:</td>
</tr>
<tr>
<td>Phone No: Alternate No:</td>
</tr>
<tr>
<td>Email address: Date/Time of Notification:</td>
</tr>
</tbody>
</table>

**Emergency Incident Script**

Those on the EAP Emergency Notification Call listing are being notified with this pre-scripted message for the Emergency Response Level being declared:

The Environmental Protection Agency discovered an unusual situation on _____________ (date/time) at the Standard Mine Superfund Site.

<table>
<thead>
<tr>
<th>EC</th>
<th>Message</th>
<th>Date &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ We have activated the Emergency Action Plan and declared a Unanticipated Release [is developing/has occurred] which has the potential to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Exceed the treatment capacity of the project and/or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ Be visible in Elk Creek and may be visible in Coal Creek</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☐ There has been an unanticipated release of _____ at the Standard Mine site and EPA operations staff are working to control the situation (or has controlled the situation) while minimizing the impact to the environment and the surrounding communities of Crested Butte and Mount Crested Butte. Emergency Personnel (or other applicable contact) were notified at _____, immediately after release was detected.</td>
<td></td>
</tr>
</tbody>
</table>
|    | ☐ The source of the unanticipated release has been identified and operations staff have _____.
|    | ☐ It is our priority to protect the safety of the public and response personnel while controlling the release and maximizing protection to the environment. |
|    | ☐ For more information, please visit _____, which will be updated as soon as more information is available. |
|    | ☐ PROTECTION OF THE ENVIRONMENT MAY DEPEND ON IMMEDIATE ACTION! |
|    | ☐ The incident has been terminated per the EPA. There is no longer a threat to property or the environment downstream of the mine site. |
SECTION III

HIGH CONSEQUENCE

NOTIFICATION FLOWCHART AND MESSAGING
High Consequence Notification Flowchart

Emergency Condition
  Observer
    Observer to directly contact Gunnison County if On-Site Project Monitor not available or if time for verification does not exist

EPA Project Manager
James Hanley
303-312-6725 (c)
720-584-2579 (c)
Alternate: Christina Progress
303-312-6006 (c)
720-951-0961 (m)

EPA Region 8 Superfund Director
Bill Murray
720-951-0969 (c)

EPA Region 8 Superfund Unit Chief
Steve Wharton
303-264-8038 (c)

EPA On-Site Coordinator
On-Call OSC
303-293-1788 (on-call desk)

CDPHE – Superfund
Ross Davis
303-866-3362 (c)
Alternate: Mark Rudolph
303-692-3311 (c)
303-916-2178 (c)

USFS
Linda Lanham
970-874-5633 (c)

EPA Region 8 OCPI
Katherine Jenkins
303-312-6725 (c)
726-935-0842 (c)

HDR On-Site Project Monitor
Travis Snyder
720-838-6065 (c)

HWCC On-Site Superintendent
TBD
Alternate: On-Site Engineer
Jacob Greenman

HDR Project Manager
Joe Shields
402-399-4833 (c)
402-305-1118 (c)

Gunnison County Dispatch
970-641-8200 Ext 1

Crested Butte DPW
Rodney Due
970-349-5356 (c)
970-208-1455 (c)

Crested Butte Water Plant
David Jeinek
970-349-0885 (c)
970-209-829 (c)
970-208-1439 (on-call)

Crested Butte Town Manager
Bill Crank

Crested Butte City Council

Other Crested Butte City Officials / Departments

CDRMS
Jeff Graves
303-866-3567 X8122 (c)
303-418-0650 (c)
Alternate:
Tara Tafl
720-425-4122 (c)

CDPHE Spill Hotline

Gunnison County Emergency Manager
Scott Marril
Alternate: Bobbie Lucero

Downstream Water Users

Other County Departments

Colorado Dept. of Emergency Management

Other State Departments

Div. of Homeland Security & Emergency Management
High Consequence Indicator

- An unanticipated release has occurred, or is imminent that is large enough to damage or wash out infrastructure and/or affect Crested Butte’s water supply system.

High Consequence Pre-Scripted Messages

<table>
<thead>
<tr>
<th>POINT OF CONTACT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name &amp; Title: Owner/Operator</td>
</tr>
<tr>
<td>Agency/Office Name:</td>
</tr>
<tr>
<td>Phone No:</td>
</tr>
<tr>
<td>Alternate No:</td>
</tr>
<tr>
<td>Email address:</td>
</tr>
<tr>
<td>Date/Time of Notification:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMERGENCY INCIDENT SCRIPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Those on the EAP Emergency Notification Call listing are being notified with this pre-scripted message for the Emergency Response Level being declared:</td>
</tr>
<tr>
<td>The Environmental Protection Agency discovered an unusual situation on ____________________________ (date/time) at the Standard Mine Superfund Site.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EC</th>
<th>Message</th>
<th>Date &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>We have (activated the Emergency Action Plan and) declared an Unanticipated Release Consequence that is large enough to wash out infrastructure and/or affect Crested Butte’s water supply system is [Imminent / Has Occurred]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There has been an unanticipated release of _____ at the Standard Mine site and EPA operations staff are working to control the situation (or has controlled the situation) while minimizing the impact to the environment and the surrounding communities of Crested Butte and Mount Crested Butte. Emergency Personnel (or other applicable contact) were notified at _____, immediately after release was detected.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The source of the unanticipated release has been identified and operations staff have _____</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contaminated water has entered into Elk Creek. Out of an abundance of caution, the Crested Butte water supply intake has been shut off.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is our priority to protect the safety of the public and response personnel while controlling the release and maximizing protection to the environment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For more information, please visit______, which will be updated as soon as more information is available.</td>
<td></td>
</tr>
</tbody>
</table>

PROTECTION OF THE ENVIRONMENT MAY DEPEND ON IMMEDIATE ACTION!

<table>
<thead>
<tr>
<th>INCIDENT TERMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The incident has been terminated per the EPA. There is no longer a threat to property or the environment downstream of the mine site.</td>
</tr>
</tbody>
</table>
SECTION IV

EMERGENCY DIRECTORY AND EAP DISTRIBUTION LIST
# Emergency Directory

<table>
<thead>
<tr>
<th>Agency</th>
<th>Primary Contact</th>
<th>Contact Name</th>
<th>Phone 1</th>
<th>Phone 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CareFlight (Montrose Helicopter Ambulance Service)</td>
<td></td>
<td></td>
<td>1-800-332-4923</td>
<td></td>
</tr>
<tr>
<td>Colorado Dept. of Public Health &amp; Environment</td>
<td>Project Manager CDPHE (Alternate)</td>
<td>Mark Rudolph</td>
<td>303.692.3311</td>
<td>303.916.2179</td>
</tr>
<tr>
<td></td>
<td>Project Manager CDPHE</td>
<td>Ross Davis</td>
<td>303-693-3362</td>
<td></td>
</tr>
<tr>
<td>Colorado Div. of Reclamation Mining &amp; Safety</td>
<td>State Rep. DRMS</td>
<td>Jeff Graves</td>
<td>303.866.3567 ext. 8122</td>
<td></td>
</tr>
<tr>
<td>Colorado Front Range Mine Rescue</td>
<td>State Emergency Operations Line</td>
<td></td>
<td>303.279.8855</td>
<td></td>
</tr>
<tr>
<td>Colorado State Emergency Management</td>
<td>Dispatch</td>
<td></td>
<td>911</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td></td>
<td>970.349.5333</td>
<td></td>
</tr>
<tr>
<td>Crested Butte Fire Dept.</td>
<td>Director</td>
<td>Rodney Due</td>
<td>970.349.5338</td>
<td>970.209.1455</td>
</tr>
<tr>
<td></td>
<td>Water Systems Manager Butte Water Plant</td>
<td>David Jelinek</td>
<td>970.349.0885</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On-Call Operator Crested Butte Water Plane</td>
<td></td>
<td>970.209.1439</td>
<td></td>
</tr>
<tr>
<td>EagleMed (Salida Helicopter Ambulance Service)</td>
<td></td>
<td></td>
<td>1-800-525-5220</td>
<td></td>
</tr>
<tr>
<td>EPA Region 8</td>
<td>Mining Engineer</td>
<td>James Hanley</td>
<td>303.312.6725</td>
<td>720.584.2579</td>
</tr>
<tr>
<td></td>
<td>Project Manager</td>
<td>Christina Progess</td>
<td>303.312.6009</td>
<td></td>
</tr>
<tr>
<td>EPA Region 2</td>
<td>Project Officer</td>
<td>Keith Moncino</td>
<td>212.637.4353</td>
<td></td>
</tr>
<tr>
<td>Flight for Life</td>
<td></td>
<td></td>
<td>720.321.3900</td>
<td></td>
</tr>
<tr>
<td>Gunnison County Dispatch</td>
<td></td>
<td></td>
<td>970.641.8201</td>
<td></td>
</tr>
<tr>
<td>Gunnison County Emergency Management</td>
<td>Manager</td>
<td>Scott Morrill</td>
<td>970.641.2481</td>
<td>970.275.1370</td>
</tr>
<tr>
<td></td>
<td>Deputy Manager</td>
<td>Bobbie Lucero</td>
<td>970.641.7690</td>
<td>970.640.2443</td>
</tr>
<tr>
<td>Gunnison Valley Hospital</td>
<td></td>
<td></td>
<td>970.641.1456</td>
<td></td>
</tr>
</tbody>
</table>
Emergency Directory (Con’t)

<table>
<thead>
<tr>
<th>Agency</th>
<th>Primary Contact</th>
<th>Contact Name</th>
<th>Phone 1</th>
<th>Phone 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDR</td>
<td>Project Manager</td>
<td>Joe Shields</td>
<td>402.399.4833</td>
<td>402.305.1118</td>
</tr>
<tr>
<td></td>
<td>Project Engineer</td>
<td>John Ballegee</td>
<td>303.323.9859</td>
<td>720.987.6623</td>
</tr>
<tr>
<td></td>
<td>On-Site Project Monitor</td>
<td>Travis Snyder</td>
<td>720.838.6065</td>
<td>303.643.6715</td>
</tr>
<tr>
<td>HWCC</td>
<td>Superintendent</td>
<td>Troy Guy</td>
<td></td>
<td>303-234-0273</td>
</tr>
<tr>
<td>Mount Crested Butte Police Department</td>
<td>Sheriff</td>
<td>Nate Stepanek</td>
<td>970.349.5866</td>
<td></td>
</tr>
<tr>
<td>USFS</td>
<td>Project Manager USFS</td>
<td>Linda Lanham</td>
<td>970.874.6633</td>
<td></td>
</tr>
</tbody>
</table>

* In Alphabetical Order
## EAP Document Distribution List

<table>
<thead>
<tr>
<th>REV. DATE</th>
<th>PLAN HOLDER</th>
<th>DOC #</th>
<th>AGENCY</th>
<th>ADDRESS 1</th>
<th>ADDRESS 2</th>
<th>EMAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-16</td>
<td>Director</td>
<td>1</td>
<td>CO Emer. Mgmt.</td>
<td>9195 E Mineral Ave</td>
<td>Centennial, CO 80112</td>
<td></td>
</tr>
<tr>
<td>Aug-16</td>
<td>David Jelinek</td>
<td>2</td>
<td>Crested Butte</td>
<td>507 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td><a href="mailto:djelinek@crestedbutte-co.gov">djelinek@crestedbutte-co.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Rodney Due</td>
<td>3</td>
<td>Crested Butte</td>
<td>507 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td><a href="mailto:rdue@crestedbutte-co.gov">rdue@crestedbutte-co.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Dispatch</td>
<td>4</td>
<td>Crested Butte Fire</td>
<td>507 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Ric Ems, Fire Chief</td>
<td>5</td>
<td>Crested Butte Fire Protection</td>
<td>306 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Mike Scott, EMS Coordinator</td>
<td>6</td>
<td>Crested Butte Fire Protection</td>
<td>306 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Tom Martin, Chief Marshal</td>
<td>7</td>
<td>Crested Butte Marshal's Office</td>
<td>508 Maroon Ave</td>
<td>Crested Butte, CO 81224</td>
<td><a href="mailto:tmartin@crestedbutte-co.gov">tmartin@crestedbutte-co.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Mark Rudolph</td>
<td>8</td>
<td>CDPHE</td>
<td>4300 Cherry Creek Drive S</td>
<td>Denver, CO 80246</td>
<td><a href="mailto:Mark.Rudolph@state.co.us">Mark.Rudolph@state.co.us</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Ross Davis</td>
<td>9</td>
<td>CDPHE</td>
<td>4300 Cherry Creek Drive S</td>
<td>Denver, CO 80246</td>
<td><a href="mailto:Ross.Davis@state.co.us">Ross.Davis@state.co.us</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Jeff Graves</td>
<td>10</td>
<td>DRMS</td>
<td>1313 Sherman St Rm 215</td>
<td>Denver, CO 80203</td>
<td><a href="mailto:Jeff.Graves@state.co.us">Jeff.Graves@state.co.us</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Tara Tafi</td>
<td>11</td>
<td>DRMS</td>
<td>PO Box 1192</td>
<td>Gunnison, CO 81230</td>
<td><a href="mailto:Tara.Tafi@state.co.us">Tara.Tafi@state.co.us</a></td>
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<tr>
<td>Aug-16</td>
<td>James Hanley</td>
<td>12</td>
<td>EPA</td>
<td>1595 Wynkoop St, EPR-S</td>
<td>Denver, CO 80202</td>
<td><a href="mailto:Hanley.James@epa.gov">Hanley.James@epa.gov</a></td>
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<tr>
<td>Aug-16</td>
<td>Christina Progress</td>
<td>13</td>
<td>EPA</td>
<td>1595 Wynkoop St, EPR-S</td>
<td>Denver, CO 80202</td>
<td><a href="mailto:Progress.Christina@epa.gov">Progress.Christina@epa.gov</a></td>
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<tr>
<td>Aug-16</td>
<td>Bill Murray</td>
<td>14</td>
<td>EPA</td>
<td>1595 Wynkoop St, EPR-S</td>
<td>Denver, CO 80202</td>
<td><a href="mailto:Murray.Bill@epa.gov">Murray.Bill@epa.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Steve Wharton</td>
<td>15</td>
<td>EPA</td>
<td>1595 Wynkoop St, EPR-S</td>
<td>Denver, CO 80202</td>
<td><a href="mailto:Wharton.Steve@epa.gov">Wharton.Steve@epa.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>On-Duty On-Scene Coordinator</td>
<td>16</td>
<td>EPA</td>
<td>1595 Wynkoop St, EPR-S</td>
<td>Denver, CO 80202</td>
<td><a href="mailto:willliams.laura@epa.gov">willliams.laura@epa.gov</a></td>
</tr>
<tr>
<td>Aug-16</td>
<td>Scott Morrill</td>
<td>17</td>
<td>Gunnison Co.</td>
<td>510 W. Bidwell Avenue</td>
<td>Gunnison, CO 81230</td>
<td><a href="mailto:smorrill@gunnisoncounty.org">smorrill@gunnisoncounty.org</a></td>
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### EAP Document Distribution List (Con’t)

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<th>ADDRESS 2</th>
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<td>Gunnison Co.</td>
<td>510 W. Bidwell Avenue</td>
<td>Gunnison, CO 81230</td>
<td><a href="mailto:blucero@gunnisoncounty.org">blucero@gunnisoncounty.org</a></td>
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<td>Aug-16</td>
<td>Rick Besecker</td>
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<td>510 W. Bidwell Avenue</td>
<td>Gunnison, CO 81230</td>
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<td>Denver, CO 80202</td>
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<tr>
<td>Aug-16</td>
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<tr>
<td>Aug-16</td>
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<td>Lakewood, CO 80215</td>
<td><a href="mailto:mulligan1943@yahoo.com">mulligan1943@yahoo.com</a></td>
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<tr>
<td>Aug-16</td>
<td>Jacob Greenman</td>
<td>HWCC</td>
<td>1208 Quail Street</td>
<td>Lakewood, CO 80215</td>
<td><a href="mailto:jgreenman@harwest.com">jgreenman@harwest.com</a></td>
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<tr>
<td>Aug-16</td>
<td>Nate Stepanek</td>
<td>Mount Crested Butte Police Department</td>
<td>911 Gothic Road</td>
<td>Mt. Crested Butte, CO 81225</td>
<td><a href="mailto:n.stepanek@mtcbpd.us">n.stepanek@mtcbpd.us</a></td>
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<tr>
<td>Aug-16</td>
<td>Linda Lanham</td>
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<td>2250 Highway 60</td>
<td>Delta, CO 81416</td>
<td><a href="mailto:llanham@fs.fed.us">llanham@fs.fed.us</a></td>
</tr>
</tbody>
</table>
SECTION V

STATEMENT OF PURPOSE
V. STATEMENT OF PURPOSE

Purpose:

The purpose of this Emergency Action Plan (EAP) is to establish procedures to respond to an unanticipated release of mine influenced water (MIW) that could potentially degrade water quality in Elk Creek, damage downstream infrastructure, and adversely affect Crested Butte’s water supply system. Additional environmental damage could affect agricultural water users, aquatic species, and have other negative economic implications in Crested Butte.

This document focuses on emergency actions associated with unanticipated (uncontrolled) release of MIW, as described above. A Health and Safety Plan has been developed for the site that addresses onsite injuries and accidents that could occur, requiring the assistance of local authorities such as EMS, fire, and police. The H&S Plan is attached to this document as Appendix A (note that Appendices F (Fan Curve) and H (Safety Data Sheets) have been omitted from the SSHP as they are not critical to this EAP). Harrison Western Construction Corporation (HWCC), who will be accomplishing the construction work, has coordinated response to onsite injuries and accidents with the appropriate local agencies.

It is important to understand that MIW currently discharges from many of the Standard Mine adits, at varying flows, with the primary discharge occurring from Level 1. These discharges are considered uncontrolled, since there are currently no means to prevent or fully treat the MIW prior to entering Elk Creek. Unanticipated releases, which are the focus of this EAP, are releases that could occur in the excess of the releases that currently occur from the adits. An unanticipated release of MIW could be caused by failure of a bulkhead or an associated structure, construction related activity, or unexpected conditions or events.

This document presents the MIW EAP to be implemented at the Standard Mine Superfund Site during construction activities associated with remedial action for the Level 1 and 3 adit rehabilitation. HDR and their subcontractor, Harrison Western Construction Corporation (HWCC), are assisting the EPA in the rehabilitation effort.

This plan also defines responsibilities to be employed by HDR, HDR contractors, and EPA staff and provides procedures designed to identify unusual and unlikely conditions which may endanger the mine site, remedial activities, EPA staff or contractors, or the environment in time to take mitigative action and to notify the appropriate emergency management officials of possible, impending, or actual release of MIW from the work site. The plan may also be used to provide notification when other toxic or hazardous releases may occur.

Scope:

This EAP:

1. Identifies a routine monitoring system that can activate the plan
2. Identifies the officials, organizations, agencies to be notified, and their respective
responsibilities for implementing the plan
3. Identifies those areas that might be affected by an unanticipated release of MIW from the project
4. Provides for timely notification and communication with local and state officials. Upon notification of the Emergency Condition, the emergency management agencies are responsible for public health-related decisions
SECTION VI

PROJECT DESCRIPTION
VI. PROJECT DESCRIPTION

The Standard Mine Site is located in Gunnison County, Colorado, approximately 5 miles west of the town of Crested Butte (Figure 1). The site is an abandoned hard rock mine located in west central Colorado at an elevation of approximately 10,900 to 11,600 feet above mean sea level. It is located within the boundaries of the Gunnison National Forest and includes approximately 10 acres situated on a combination of both U.S. Forest Service (USFS) land and private mining claims. The Standard Mine site includes several discrete areas of mining disturbance: Level 1, Level 2, Level 3, Level 4, Level 5, and Level 98.

One site wide operable unit includes all contaminated media present at or discharging from the site. A more complete description of the site can be found in the Standard Mine ROD, the Remedial Investigation (RI), and the Feasibility Study (FS) Report.

Contaminated media include waste rock, tailings, surface water, groundwater (limited contamination), and acid rock drainage emanating from the mine workings. Elevated concentrations of cadmium, copper, lead, manganese, zinc, and other metals are present in site soil, mine discharges, and downstream surface water. The site releases contaminated discharge from the abandoned mine workings into Elk Creek with peak flow rates from May to July exceeding 100 gallons per minute (gpm) in some years and low flow rates between August and April that are less than 10 gpm.

A. Existing Adit Conditions

The original 1958 Carpenter Mine Map, Figure 2, shows the five levels in the Standard Mine. The lowest level, Level 1, is at approximately elevation 11,000, followed by Level 2 at elevation 11,240, and Level 3 at elevation 11,320. Level 4 consists of a twin shaft raise from Level 3 to the ground surface. Levels 5 and 98 are not connected to Levels 1 through 4. The bulk of mining activity occurred within Levels 1, 2, and 3.

In 2015, construction of a bypass adit adjacent to and north of the existing Level 1 adit was initiated. An open cut excavation was used to advance the bypass adit to a competent rock face. Drilling and blasting techniques were then employed to build the adit parallel to the Level 1 adit. The bypass adit turns 90 degrees and intersects the Level 1 adit at Station 5+00. From Station 5+00, approximately 250 feet of the original Level 1 adit was rehabilitated to allow for installation of the flow-through concrete bulkhead which was placed in October 2016. Concrete raise seals were also installed in Level 3 to direct seepage in Level 3 from migrating into lower mine workings and channelize the discharge to the Level 3 portal.

B. Mine Influenced Water Accumulation and Discharge

Groundwater enters the mine workings from fractures and breccia zones. Once in the mine, water accumulates metals as it flows over sulfide minerals present on the floors, ribs and backs of the tunnels. Prior to the installation of the raise seals, water in Level 3
originally flowed to Level 2 through open stopes, raises, and filled ore chutes where it is believed that the most significant mobilization of metals occurred. Additional water enters Level 2 from fractures and the fault-vein system. Water flows through muck on the floor of Level 2. Water pooled up behind debris in Level 2 compounds loading by providing additional residence time for leaching of metals before the water is discharged via raises to Level 1 or through the collapsed portal of Level 2. Water currently flows from these raises across the floor of Level 1 and through an open 8-inch stainless steel pipe constructed in to the bulkhead. From the bulkhead the discharge is routed in to the new bypass adit.

Water is discharged at the Level 1 bypass portal. At the outlet of Level 1, the water drains into a series of sedimentation ponds have been constructed by EPA. The ponds are used to treat the discharge and promote the settlement of suspended solids in the water. After passing through the ponds, discharge from Standard Mine drains into Elk Creek (see Figure 3), which flows southward to Coal Creek, the drinking water source for Crested Butte. Coal Creek flows east toward the Town of Crested Butte. The Crested Butte municipal water intake is located on Coal Creek approximately two miles downstream of the confluence with Elk Creek.

C. Potential Failure Modes

HDR, EPA, and several other stakeholders conducted a Failure Modes and Effects Analysis (FMEA) workshop on March 17, 2016. The FMEA workshop identified ten Potential Failure Modes with an associated Likelihood and Consequences risk of Low, Medium, or High. A summary table from the FMEA workshop is included below:
## STANDARD MINE FMEA WORKSHOP RESULTS SUMMARY

<table>
<thead>
<tr>
<th>Potential Failure Mode ID</th>
<th>Short Description</th>
<th>Risk w/o mitigation Likelihood/Consequences</th>
<th>Risk w/ mitigation Likelihood/Consequences</th>
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<tr>
<td>PFM #1</td>
<td>Breach of existing portal blockage in Level 2</td>
<td>Low/High</td>
<td>Low/Low</td>
</tr>
<tr>
<td>PFM #2</td>
<td>Level 1 blockage inby of Station 5+00 collapse by breakthrough blasting</td>
<td>Medium/High</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>PFM #3</td>
<td>Level 1 blockage inby of Station 5+00 collapse during removal</td>
<td>Low/High</td>
<td>Low/Low</td>
</tr>
<tr>
<td>PFM #4</td>
<td>Level 1 blockage inby of bulkhead breaches during bulkhead construction</td>
<td>Medium/High</td>
<td>Low/High</td>
</tr>
<tr>
<td>PFM #5</td>
<td>Release through Keystone Mine</td>
<td>Low/Low</td>
<td>No mitigation needed</td>
</tr>
<tr>
<td>PFM #6</td>
<td>Breach of sedimentation pond at Level 1 or Level 3 by overtopping</td>
<td>Medium/High</td>
<td>No mitigation feasible</td>
</tr>
<tr>
<td>PFM #7</td>
<td>Blockage outby of Level 2 central raise releases water down into Level 1</td>
<td>Medium/Low</td>
<td>Low/Low</td>
</tr>
<tr>
<td>PFM #8</td>
<td>Water inby of blockage at Level 2 central raise flowing down into Level 1</td>
<td>Medium/High</td>
<td>Low/High</td>
</tr>
<tr>
<td>PFM #9</td>
<td>Failure of coffer dam at Level 1 inby of the bulkhead (small volume of potential release)</td>
<td>Low/Low</td>
<td>No mitigation needed</td>
</tr>
<tr>
<td>PFM #10</td>
<td>Unanticipated release at Level 1.5, Level 2 or Keystone mine due to MIW impounded behind new bulkhead in Level 1</td>
<td>Low/High (Level 1.5 or 2)</td>
<td>Low/Low (for all release locations)</td>
</tr>
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FIGURE 2
CARPENTER MINE MAP

Concrete
Bulkhead
Concrete Raise
Seals
Figure 3 - Conceptual Remediation Strategy

- Infiltration of snowmelt and surface runoff
- Snowmelt and surface runoff
- Mine discharge routed around waste rock piles
- Groundwater flows into mine via fractures and faults
- Water flow through mine workings, becoming contaminated
SECTION VII

EAP RESPONSE PROCESS
VII. EAP RESPONSE PROCESS

Introduction

It is imperative that the detection, evaluation, and classification of an emergency situation at the Standard Mine Superfund Site be carried out expediently so that the notification procedures contained in this plan can be effectively implemented.

A. Step 1: Incident Detection, Evaluation, and Emergency Level Determination

Detection of Conditions

Construction activities will be occurring up to 24 hours per day during the summer construction season, generally from July through October. During this construction season, HWCC and HDR staff will be on-site during any construction activities. HDR staff will be performing routine monitoring of the adit discharge twice daily, or more frequently following significant precipitation events. Site monitoring plans will seek to identify if certain significant conditions such as blockages in the adit occur that could result in impounded MIW, or thresholds are exceeded, such as a change in pH, turbidity, or flow rate that could indicate an emergency situation is developing. HDR would detect these changes and would immediately investigate the potential emergency.

Similarly, HWCC staff is trained to perform visual inspections to identify potential issues such as changes in turbidity and to report and document any unusual conditions that may indicate a potential or an actual emergency condition.

Evaluation of Detection Data and Verification of Emergency Situation

Upon observation of any monitoring or visual inspection data that indicates unusual or abrupt changes in operating conditions, the HDR On-Site Monitor will evaluate the conditions. The evaluation may include review of supporting related conditions data, collecting additional data, and with consulting HWCC, EPA, and other stakeholders, as appropriate, to determine if the conditions could possibly be related to an emergency situation. Based on the evaluation, the HDR On-Site Monitor will implement the EAP, if required.

Emergency Level Indicators and Determination

The term “emergency” as used in this EAP is defined as an impending or actual sudden release of MIW caused by failure of a bulkhead or an associated structure, construction related activity, or change in geological conditions. Project emergencies are categorized as follows:

- high consequence release is imminent or has occurred,
- medium consequence release is imminent or has occurred, or
• abnormal reading/observation or low consequence release.

Any release of MIW that reaches Elk Creek triggers activation of this EAP and immediate notification to the City of Crested Butte (in a low consequence event) or immediate notification to the Gunnison Dispatch must occur to allow the City of Crested Butte to protect the public water supply.

The emergency levels have different notification procedures and response activities covered by this plan. The three emergency levels and their respective indicators are defined below.

• **High Consequence Release is Imminent or Has Occurred** – The “High Consequence Release is Imminent or Has Occurred” emergency level indicates that mitigative options have been exhausted. *High Consequence Indicators* could consist of an unanticipated release of MIW has occurred, is occurring, or is about to occur that is large enough to damage or wash out infrastructure and affect Crested Butte’s water supply system. A threat to human health is possible for individuals working underground or public in downstream recreation areas immediately adjacent to the mine site.

• **Medium Consequence Release Developing or Has Occurred** – The “Medium Consequence Release is Developing or Has Occurred” emergency level indicates that a release has occurred or conditions are developing at the mine that could lead to an unanticipated release of MIW. Medium consequence is considered a release of mine influenced water into Elk Creek resulting in the possibility of: 1.) Coal Creek flowing orange through the town of Crested Butte resulting in negative impacts to tourism and other economic impacts, 2.) impact to agricultural water users and /or aquatic species, and 3.) potential impact to water supply unless action is taken. *Medium Consequence Indicators* could consist of: (1) rising discharge rates that are approaching the treatment capacity of the project, (2) unanticipated water being released from a new or existing probe hole, and (3) sudden increase in turbidity indicating movement of soil at an existing blockage.

• **Abnormal Reading/Observation or Low Consequence Release** – The Abnormal Reading/Observation or Low Consequence Release emergency level is appropriate for an event at the mine that will not, by itself, lead to a significant release, but requires investigation and notification of internal and/or pre-selected external personnel. *Abnormal Reading/Observation or Low Consequence Release Indicators* could consist of: (1) observations of new seepage or leakage locations, (2) mine discharge in excess of historical thresholds, and (3) monitoring readings that are above established thresholds.

Based on HDR and EPA’s assessment (and as a result of prior coordination with the appropriate authorities), the local emergency management authorities will be placed on alert and are responsible for determining the appropriate course of action outside of the project site. HDR and EPA do not have authority to implement any emergency actions beyond the project site and responsibility would solely be governed by the local emergency management/response agencies. Communication between the project site (EPA and HDR) and the local emergency management/response agencies will be critically important to coordinate activities and ensure
responses are appropriate to the current conditions. If it appears that a situation may take days or weeks before it could develop into an unanticipated release, the local emergency management authorities may decide on one course of action outside of the project site. Periodic status report updates from HDR and EPA are important because when it appears that the situation is continuing to worsen at the mine, in spite of the actions being taken to moderate or alleviate failure, the local emergency management authorities may decide to change their course of action outside of the project site. If the condition worsens, communication is also critical to provide a proper transition from “potential release developing” level to “release is imminent or has occurred” level.

B. **Step 2: Notification and Communications**

After the emergency level at the mine has been determined, notifications are made in accordance with the appropriate Notification Flowchart in Sections I, II, and III. EAP Notifications (Sections I, II, and III) shall be used by HDR and EPA during an actual emergency.

For medium and high consequence releases, the first call will be made to Gunnison Dispatch, as described in the medium and high notification charts (see Sections II and III). The communication will include a description of the emergency.

After initial notification, the HDR and EPA will make periodic status reports to the affected emergency authorities and other stakeholders in accordance with the Notification Flowcharts, responsibilities described in Section IX, and associated procedures.

In cases where a release is imminent or has occurred, three systems will be available for communication to off-site stakeholders:

- DTRS / 800 radios loaned from the Gunnison County Emergency dispatch office. These radios have been tested and proven to work at the site and from the office trailer location. They are the primary means of communication to contact Gunnison County dispatch, which will then effectively notify emergency response agencies from both Gunnison and Crested Butte.
- UHF radios loaned from the Forest Service - These radios can also be used to directly communicate with the USFS Regional Office located in Montrose, CO
- Satellite phones

C. **Step 3: Emergency Actions**

HDR will immediately respond appropriately to minimize or prevent an unanticipated release of MIW, if possible, and minimize impacts to life, property, and the environment. The HDR Onsite Monitor will, as conditions permit, consult with the EPA to evaluate the condition and identify preventative or mitigation measures to be taken. During this step, there is a continuous process of taking actions, assessing the status of the situation, and keeping others informed through communication channels established during the initial notifications.
The EAP may go through multiple emergency levels during Steps 2 and 3 as the situation improves or deteriorates. Conditions and decisions made during the mine safety emergency will be documented by the HDR and EPA.

HDR and EPA will initiate emergency surface water monitoring activities as soon as practical after declaration of the emergency. These monitoring activities are defined in the Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) that has been developed for this project. The QAPP defines the monitoring requirements, frequencies, and triggers to terminate emergency monitoring.

If appropriate to the incident, HDR will contact USFS Gunnison District Office to dispatch forest rangers to the trailhead that leads to the hiking trail along Elk Creek to evaluate whether public recreation is occurring along Elk Creek and provide warnings to recreators, if possible. If forest rangers are unavailable, HDR will dispatch personnel to perform this task.

During an incident, safety and security measures will be implemented as needed to secure the affected operational areas at the mine to protect operations personnel and the public, and permit an effective performance of emergency response actions.

D. Step 4: Termination and Follow-Up

Once activated, EAP activities will not be terminated until emergency monitoring of surface water indicates that impacts to surface water have ceased. The triggers for making this decision are included in the UFP-QAPP: Termination conditions defined in the QAPP include:

While the EAP is in effect, and once the water monitoring field team has mobilized, sampling for field parameters (turbidity, pH, and conductivity) will be conducted once every two hours and will not conclude until the flow rate and water quality has returned to within a baseline range. Samples will also be collected daily at monitoring Station ELK10 for laboratory analysis of metals and will not conclude until water quality has returned to within baseline range. The baseline range is defined as the average of the analytical results from the baseline sampling conducted prior to the start of the 2016 construction season, +/- 25%.

In addition, sediment samples will be collected for laboratory analysis of metals during each surface water sampling event, whenever surface water samples are being submitted for laboratory analysis. Sediment samples will be collected from three points in the stream: the middle and one from near each bank and will be compared to baseline data to evaluate whether sediment degradation has occurred. Sediment sampling will occur at monitoring station ELK00.
Conditions and decisions that support termination of a mine safety emergency will be documented by HDR and EPA.
SECTION VIII

GENERAL ROLES AND RESPONSIBILITIES UNDER THE EAP
VIII. GENERAL ROLES AND RESPONSIBILITIES UNDER THE EAP

Below is a *general* outline of responsibilities for key positions. _The subsequent checklists contain response tasks for HDR and EPA personnel only._

<table>
<thead>
<tr>
<th>HDR and EPA Roles &amp; Responsibilities</th>
<th>Other Agencies Roles</th>
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</thead>
<tbody>
<tr>
<td><strong>HDR On-Site Monitor</strong></td>
<td><strong>Gunnison County Dispatch</strong></td>
</tr>
<tr>
<td>• Generates or receives initial report of potential emergency condition and evaluates report</td>
<td>• Gunnison Dispatch will be notified, and they will notify the appropriate agencies responsible for incident response with life at risk or in need of rescue, coordination, and if necessary warning of downstream areas</td>
</tr>
<tr>
<td>• Activates EAP as appropriate</td>
<td>• Coordinate with other local and state agencies as necessary for the management of resources to manage the emergency and protect affected populations or infrastructure</td>
</tr>
<tr>
<td>• Notify EPA Remedial Project Manager and/or verifies emergency condition and advises</td>
<td>• If appropriate to the incident, the local agencies will assign an incident commander responsible for actions downstream of the project site and coordinate directly with the response at the project site</td>
</tr>
<tr>
<td>• Develops appropriate action plan consulting with EPA and HWCC, to the extent possible</td>
<td></td>
</tr>
<tr>
<td>• Continued monitoring and evaluation</td>
<td></td>
</tr>
<tr>
<td>• Engage HDR resources in Colorado or other locations as appropriate and necessary</td>
<td></td>
</tr>
<tr>
<td><strong>HWCC On-Site Superintendent</strong></td>
<td><strong>Crested Butte Water Plant and Crested Butte Department of Public Works</strong></td>
</tr>
<tr>
<td>• Immediately inform HDR On-Site Monitor of any potential emergency conditions</td>
<td>• Evaluate information received to determine if corrective actions are required to protect water supply</td>
</tr>
<tr>
<td>• Assist with continued monitoring as requested by HDR On-Site Monitor</td>
<td></td>
</tr>
<tr>
<td>• Coordinate any potential response plan in conjunction with HDR On-Site Monitor</td>
<td></td>
</tr>
<tr>
<td>• Implement evacuation procedures for HWCC staff if required</td>
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</tr>
<tr>
<td><strong>EPA Remedial Project Manager</strong></td>
<td><strong>Colorado Dept. Public Health and Environment</strong></td>
</tr>
<tr>
<td>• Consults with HDR On-Site Monitor of verified site conditions and appropriate emergency level, as available</td>
<td>• Serve as primary state-level contact with EPA for coordination of state level resources, response, and emergency response</td>
</tr>
<tr>
<td>• Perform required notifications for given emergency level and provide regular updates/coordination/meetings with local officials, including development and release of information to the media and public</td>
<td>• Notify and coordinate with the Division of Reclamation Mining &amp; Safety and the Colorado Division of Homeland Security &amp; Emergency Management</td>
</tr>
<tr>
<td>• Coordinate deployment of water quality sampling field team</td>
<td></td>
</tr>
<tr>
<td>• Log information as appropriate</td>
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<tr>
<td>• Develop action plan with HDR as necessary</td>
<td></td>
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</tbody>
</table>
• Coordinate additional federal resources as necessary

EPA On-Scene Coordinator (OSC)
• Travel to and assume on-site command of emergency response if condition requires.

U.S. Forest Service
• Provide additional resources and public warnings as necessary on federal lands.

EPA Region 8
• Briefs appropriate EPA officials as needed.
• Assists in coordination of additional technical and response support as needed.

A. Notification and Communication Responsibilities

HDR On-Site Project Monitor

The HDR On-Site Project Monitor has the responsibility of gathering data from all on-site staff (HDR, HWCC, and EPA), evaluating data and activating the EAP/ Emergency Level Determination, as appropriate. The HDR On-Site Project Monitor will consult with and inform the EPA Project Manager on data collection and decision-making

EPA Project Manager

The EPA Project Manager will consult with HDR on data collection and evaluation, EAP activation, and Emergency Level Determination and make notifications as shown in the notification flowcharts. Other local and state agencies will make all required notifications per their internal notification procedures.

B. Responsibilities for Public Health and Environment

Protection of public health, infrastructure, water supply, and the environment located outside of the project are the responsibilities of local emergency management authorities with the legal authority to perform these actions. Incident Command for these responsibilities will be the Crested Butte Marshall and/or Crested Butte Fire (referred to elsewhere as “Downstream Incident Command”). Gunnison County Office of Emergency Management will support Downstream Incident Command through requesting additional resources and providing public warning / notification, as may be required.

C. Monitoring, Security, Termination and Follow-up Responsibilities

The HDR On-Site Project Monitor (or the EPA On-Site Coordinator) will designate staff for on-site monitoring of the emergency situation at the mine if it is safe. The EPA Project Manager is responsible for making the initial notifications and for keeping the emergency management agencies informed of developing conditions at the mine throughout the emergency.
The EPA Project Manager is also responsible for declaring that the emergency at the mine is terminated. The EPA Project Manager will consult with the Crested Butte, Gunnison County, and CDPHE when conditions stabilize upon abatement of the emergency at the mine to determine the time to terminate the emergency condition. The Downstream Incident Command is responsible for terminating disaster response activities downstream of the project site, based on coordination with EPA and CDPHE.

After the emergency, the EPA Project Manager is responsible for conducting a follow-up evaluation by all participants to verify if additional actions are required and/or review response procedures for potential improvements to the EAP.

D. EAP Coordinator Responsibility

The EAP Coordinator* for the Standard Mine Superfund Site EAP is:

Travis Snyder  
HDR On-Site Project Monitor
8 Hunter Hill Road Suite #306  
Mt. Crested Butte, CO  81225  
Phone: 720.838.6065  
Email: Travis.Snyder@hdrinc.com

The EAP Coordinator will work with individuals on the Notification Flowcharts to coordinate responsibilities for:

■ Serving as primary contact for matters related to EAP preparation, revision, and administration
■ Ensuring that all operating personnel are familiar with the contents and are trained in the use of the EAP
■ Preparing revisions as necessary to keep information in the EAP current
■ Consulting with public safety agencies to ensure they understand their responsibilities and notification procedures under the EAP
■ Ensuring that surveillance activities and equipment are maintained and upgraded as required providing sufficient warning in the event of an emergency situation
■ Ensuring that emergency supplies and equipment are available and are maintained for preventative activities
SECTION IX

PREPAREDNESS
IX. PREPAREDNESS

A. Surveillance and Monitoring

Physical monitoring during the construction season will be conducted twice daily and include pH using test strips, visual observation of turbidity, and flow rate. Visual inspections and monitoring may be increased after periods of significant rainfall.

Inspections of the mine and related structures are performed as a means of surveillance and detection of an emergency situation. During periods of an actual release, physical sampling surveillance will be coordinated through the EPA if it can be done safely as determined by the HDR On-Site Project Monitor.

EAP notification (Sections I, II, and III) requires that the nature of the emergency be identified in the EAP notification process such that the circumstances under which the EAP is initiated are understood. This EAP does not conflict with site-specific or general security measures.

B. Access to Site

Vehicle access to the mine site is primarily by County, U.S. Forest Service Roads, and secondary gated access roads. Alternate means of access may be required in the event access roads are impassable, including access by foot, snowmobile, ATV, or helicopter.

C. Response During Periods of Darkness

During periods of darkness, any auxiliary illumination required will be provided through use of portable lighting equipment provided by local Emergency Services resources.

D. Response During Weekends and Holidays

All HDR and EPA personnel with key responsibilities under the EAP, or their alternate, will be available as needed in the event of an emergency condition during weekends and holidays during the construction season.

E. Response During Periods of Adverse Weather

During the non-construction season, access time can be severely reduced due to road conditions during periods of adverse weather.
F. Alternate Systems of Communications

Contact between personnel on-site and external parties is primarily accomplished using satellite phones. In case of an emergency, a DTRS / 800 radio has been provided by Gunnison County that provides direct access to Gunnison County Dispatch. This radio will be mounted in the miner’s equipment building located near the Level 1 adit. As a backup/alternate means of communication, a UHF radio that communicates through a system of mountain-top repeaters maintained by the USFS has been obtained for on-site use during an emergency. Instructions are available in Appendix B for use, location, and maintenance of the radios.

G. Emergency Supplies and Resources

The use of stockpiled materials, equipment for emergency use or repair, and equipment operator(s) are coordinated through the HWCC On-Site Superintendent if it is determined that the repair is practical. Stockpiled materials and equipment located on-site include backfill material, sand bags and dewatering bags. Other supplies or resources may include probehole drilling with expandable packers, materials to repair sedimentation ponds, dewatering sock, and other similar erosion control supplies. HWCC has available excavating and lifting equipment that are on-site for construction. Emergency supplies and resources to aid evacuees may also be available from Gunnison County Emergency Services. Additional field and professional support services are available in HDR and EPA offices in Denver, Colorado.

Additionally, HWCC has an agreement in place with Colorado Front Range Mine Rescue for on-call services in the event of an emergency. The HWCC On-Site Superintendent would be responsible for initiating Colorado Front Range Mine Rescue services. It is estimated that the response time for this service, from notification to arrival at the site, would be 5-6 hours. Local emergency medical services do not have the training or equipment to perform mine rescue.

To respond to serious medical emergencies, Flight for Life can respond within about 30 minutes. In addition, the air ambulance services EagleMed (based in Salida) and CareFlight (based in Montrose) are available. Contact information for each of these organizations is included in the emergency contact telephone directory. HDR or HWCC would contact these services, depending on the emergency.

H. Field Operations Center (FOC)

Unless otherwise determined by the HDR On-Site Project Monitor (or the EPA On-Site Coordinator), the HDR on-site project office will serve as the Field Emergency Operations Center (FOC), where HDR, HWCC, and EPA personnel will be coordinated and updated during an emergency. Depending on the situation/emergency, local officials and Downstream Incident Command (or designee) may also be in the FOC; however, space and resources are limited.
I. Coordination of Information

As described in Section VIII-A, the EPA Project Manager will coordinate the sharing of information on releases or other emergency situations from the Standard Mine Superfund Site based on actual site conditions as indicated on the Notification Flowcharts (Sections I, II, and III).

Actions to mitigate unanticipated discharges may be taken by EPA, HDR, and HWCC when it is determined that to do so would protect the integrity of project structures or mitigate the extent of possible severe damage to persons and environment located in the potentially impacted areas downstream.

J. Training and Exercising

Training

In order for this EAP to be effective, all personnel responsible for its implementation must be familiar with the contents of the EAP. The EAP Coordinator will ensure that all operating personnel are familiar with the contents of the EAP and are trained in its use. Responsible personnel will review the EAP to understand their responsibilities under the EAP and the notification and operational procedures for each type of emergency situation. Refresher training sessions will be conducted at least monthly to review the EAP with operating personnel, and all responsible personnel will be updated monthly on any revisions made to the EAP. A statement on the annual training session will be included in the annual review of the EAP. Copies of forms that support the review and updating of the EAP are provided in Appendix C.

Tabletop Exercise

If the EAP is not exercised periodically, those involved in its implementation may lose familiarity with their roles and responsibilities. Subsequent to this EAP implementation, a comprehensive “tabletop” exercise will be conducted in order to include active participation by State and local emergency preparedness agencies. The purpose of the tabletop exercise is to improve operational readiness and develop the cooperative spirit, coordination, and clarify roles required between HDR, EPA, HWCC, and emergency preparedness agencies. Dependent upon the duration of construction additional tabletop exercises may be conducted. Following the tabletop exercise, HDR will develop an after action report that documents the exercise and includes action items, action dates, and responsibilities needed to implement corrective actions identified during the exercise.

K. Public Awareness and Communication

In accordance with the Construction Specifications Section 01 50 00 TEMPORARY FACILITIES AND CONTROLS the use of the existing gates and locks provide for protection of property, equipment, and facilities, allowing only authorized personnel access to the work areas. The gates remain locked when remedial action activities are not
being conducted. To date, the need for additional specific public awareness measures to enhance this EAP has not been identified.
SECTION X

APPENDICES

APPENDIX A  PROJECT HEALTH AND SAFETY PLAN
APPENDIX B  UHF RADIO INFORMATION
APPENDIX C  PLANS FOR REVIEWING, UPDATING AND POSTING THE EAP
APPENDIX A

Project Health and Safety Plan
APPENDIX B

DTRS / 800 and UHF Radio Information
(to be added at a later date)
APPENDIX C

Plans for Reviewing, Updating and Posting the EAP
Plans for Reviewing, Updating and Posting the EAP

A. Annual Review and Update

The EAP Coordinator is responsible for conducting an annual review of the adequacy of the EAP and preparing revisions as necessary to keep information in the EAP current. Revisions to the EAP will be immediately distributed to all EAP plan holders to keep the EAP workable. Plan holders will be provided with the appropriate number of copies of all revisions, and revised pages will be marked “Rev. Month Year.” Revisions and updates to the EAP will be recorded on the revision log that follows.

B. Posting the EAP

The Notification Flowcharts (Sections I, II, and III) will be posted in the on-site work trailers. Copies of the EAP are distributed to all operational, supervisory, and emergency personnel as per the Document Distribution List (Sections I, II, and III).
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