

Introducing: Colorado Smelter Superfund Site



February 3, 2015

EPA's Mission

- EPA's mission is to protect public health and the environment.
- EPA has determined there is a potential threat to public health and the environment at the Colorado Smelter Site from lead and arsenic due to historic smelting activities.
- EPA has the technical resources available to address the public health risks related to lead and arsenic at the Colorado Smelter Site.

What is Superfund?

- Superfund is the name given to the environmental program established to address abandoned hazardous waste sites.
- Superfund cleanup process is complex.
 - Involves steps taken to assess sites
 - Place them on the National Priorities List if warranted (NPL).
 - The NPL includes national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories.
 - Establish and implement appropriate cleanup plans

Goals of Superfund

- Protect human health and the environment by cleaning up polluted sites
- Involve communities in the cleanup process
- Have responsible parties pay for cleanups
- Return previously-contaminated land to productive use



Superfund Process Acronyms

- PA/SI Preliminary Assessment and Site Inspection
- NPL National Priorities List
- RI/FS Remedial Investigation/ Feasibility Study
- ROD Record of Decision
- RD/RA Remedial Design/ Remedial Action

Areas sampled in 2010 by the Colorado Department of Public Health and Environment

- Some yards have higher than normal levels of arsenic and lead
- These levels present a potential threat to public health and the environment
- EPA and the State will address potential contamination found



Colorado Smelter
Sampling Locations
June, 2010



Figure 5

What do we currently know about the Colorado Smelter Superfund Site?

- There are some residential areas that have higher than acceptable levels of arsenic and lead in soil
- The very large historic smelter slag pile needs to be addressed
- EPA and the state health department are responsible for protection of human and environmental health
- More information is needed

What do we currently know at the Colorado Smelter Superfund Site?

Higher than acceptable levels of arsenic and lead have been seen in yards and the large slag pile.

Lead

- Up to 26,500 ppm in the slag area
- Up to 962 ppm in residential soil samples
- 47% of yards sampled had lead concentrations above our health based guideline of 400 ppm

Arsenic

- Up to 1,740 ppm in the slag area
- Up to 343 ppm in residential soil samples
- 33% or 5:15 samples analyzed were above 28.5 (3× background) and greater than EPA's health based guidelines (23/0.43 ppm)

What Do We Know about Lead?

Health impacts to children:

- Lead, at elevated levels, can be related to developmental impacts in children 6 and younger
- Impacts can be long lasting
- The harm is subtle and difficult to see
- Studies show that small increases in blood lead result in decreases in IQ. This lowering of IQ could result in approximately \$38-107 million lost in lifetime earning potential
- Soil contamination is one source in elevated blood lead that we can do something about

What Do We Know about Lead?

Young children (age 0–6 years) are most sensitive to the effects of lead because they:

- have more hand-to-mouth behavior = higher intakes of lead-contaminated environmental media such as soil, dust, and paint;
- tend to absorb ingested lead more readily than adults; and
- are more sensitive to the neurotoxic effects of lead than are older children or adults.

What Do We Know about Lead?

Health impacts to adults:

- Increases risk of cardiovascular effects, including increased blood pressure; incidence of hypertension
- Reduced renal (kidney) function

What Do We Know About Arsenic?

- Arsenic is naturally occurring
- At high levels arsenic can be dangerous for children and adults
- Known carcinogen
- Can impact several organ systems: skin, digestive, liver, nervous, and respiratory
- Does pass through the body, but over time, the body can carry enough to possibly have impacts such as lung and skin cancer and digestive tract problems

Current Activities

- Placing warning signs in the area of the existing slag pile and potential
- EPA is still evaluating additional possible interim/immediate actions to restrict access to the slag pile area
- Consent for Access forms for property sampling
- Future activities and timeline

CAUTION

COLORADO SMELTER SITE

HAZARDOUS LEVELS OF LEAD AND ARSENIC

AVOID BRINGING CONTAMINATION HOME

NO BIKING AND NO WALKING THROUGH AREA



-KEEP OUT-

For More Information Call the US
Environmental Protection Agency
800-227-8917 ext. 312-6484



PRECAUCIÓN

EL SITIO DE LA COLORADO SMELTER

NIVELES PELIGROSOS DE ARSÉNICO Y PLOMO

EVITE EL TRAER DE CONTAMINACIÓN A SU CASA

NO SE PERMITE EL CICLISMO NI EL CAMINAR A
TRAVÉS DEL ÁREA

-NO ENTRE-

PARA MÁS INFORMACIÓN LLAMA A:
La Agencia de Protección Ambiental
de EE.UU.

800-227-8917 ext. 312-6508





NO TRESPASSING

Pursuant to Municipal Code

Sec. 11-1-406

PROHIBIDO EL PASO

El código municipal

Sec. 11-1-406



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

CONSENT FOR ACCESS

Name: _____ Phone _____
Property Address: _____ Home: _____
Mailing Address: _____ Work: _____
_____ Cell: _____

Relationship to Property (please circle one): OWNER OR TENANT/RENTER

If you are the home tenant/renter, please supply the name, mailing address, phone number and/or email address of the homeowner/landlord.

The U.S. Environmental Protection Agency (EPA) has requested access to my property pursuant to its responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq., as amended, commonly known as Superfund, which gives the EPA the authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

ACCESS FOR SOIL SAMPLING IN MY YARD

I hereby give my consent to the U.S. Environmental Protection Agency (EPA) staff and authorized representatives to enter and have continued access to the property described above, at reasonable times, to (1) take soil samples in my yard, including surface soils (typically within 0 to 2 inches of the surface) and subsurface soils (typically 2 to 18 inches below ground).

Signature _____ Date: _____

ACCESS FOR SOIL SAMPLING FOR DUST INSIDE MY HOME

(Note: Dust sampling is not required, but is recommended)

I hereby give my consent to the U.S. Environmental Protection Agency (EPA) staff and authorized representatives to enter and have access to the property described above, by appointment, to take dust samples in my home by vacuuming the indoor living area and attic.

Signature _____ Date: _____

****Properties sent a request for access letter for sampling - NOT an outline of the Superfund area boundary**



**Colorado Smelter
Pueblo, CO**

**** Parcel Map**

Legend

ZONING (# of Parcels)

Parcels

1,889 total Parcels

CURRENT OU1

CURRENT OU2

DRAFT



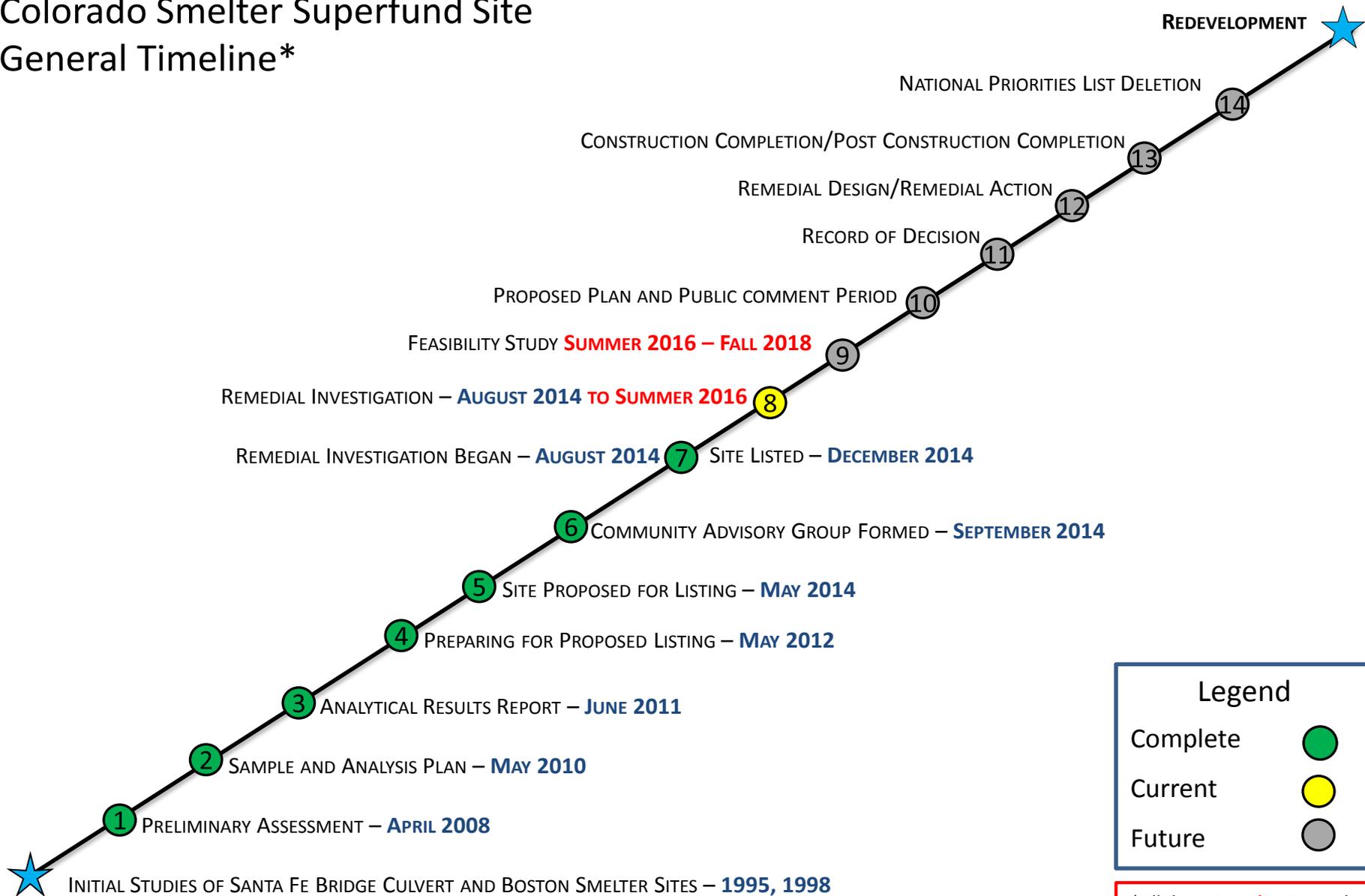
0 250 500 1,000 1,500 Feet

**** NOT part of
current OU2*

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Colorado Smelter Superfund Site

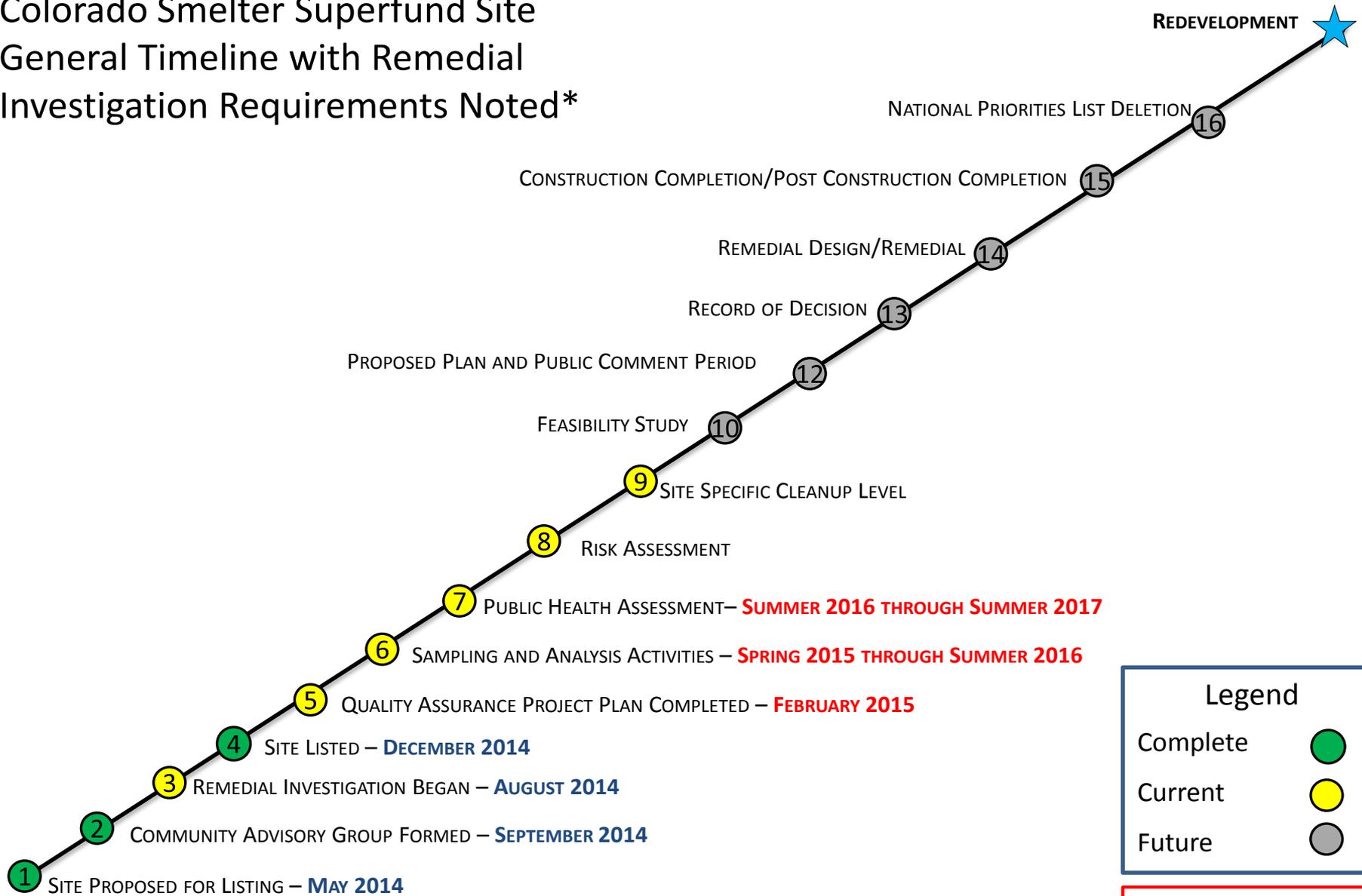
General Timeline*



Legend	
Complete	●
Current	●
Future	●

*All dates in red estimated and subject to change

Colorado Smelter Superfund Site General Timeline with Remedial Investigation Requirements Noted*



Legend

- Complete
- Current
- Future

*All dates in red estimated and subject to change

Site Contacts

Sabrina Forrest, EPA

Project Manager

303-312-6484

1-800-227-8917 x 312-6484

forrest.sabrina@epa.gov

Chris Wardell, EPA

Community Involvement Coordinator

303-312-6062

1-800-227-8917 x 312-6062

wardell.christopher@epa.gov

Alissa Schultz, CDPHE

Project Manager

303-692-3324

1-888-569-1831 x 3324

alissa.schultz@state.co.us

Jeannine Natterman, CDPHE

Community Involvement Coordinator

303-692-3303

1-888-569-1831 x 3303

Jeannine.Natterman@state.co.us