

PEL	permissible exposure limit
PRAO	preliminary remedial action objective
PRG	preliminary remediation goal
QA	quality assurance
QC	quality control
RAO	remedial action objective
RG	remedial goal
SC	clayey sand
SM	silty sand
SPT	standard penetration test
SPT	poorly graded sand
SW	well-graded sand
TI	technical impracticability
TMV	toxicity, mobility, or volume
TSP	treated stockpiles
UIC	underground injection control
WWTP	wastewater treatment plant
XRF	x-ray fluorescence

**Analytes and Laboratory Terms**

BOD	biological oxygen demand
Cd	cadmium
CLP	contract laboratory program
DMA	dimethyl arsenic acid
DO	dissolved oxygen
FB	field blank
FD	field duplicate
Fe	iron
Hg	mercury
ICB	initial calibration blank
ICC	initial calibration check
IDL	instrument detection limit
K	potassium
LAP	laboratory analytical protocol
LCS	laboratory control sample
LRB	laboratory reagent blank
LFM	laboratory fortified matrix
LNAPL	light non-aqueous phase liquid
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
N	nitrogen
NS	not sampled
ORP	oxidation reduction potential
P	phosphorus
PAH	polyaromatic hydrocarbon
Pb	lead
PCP	pentachlorophenol
PM10	particulate matter diameter of 10 µm or less
POHC	principal organic hazardous constituents
PVC	polyvinyl chloride
QCS	quality control sample
Ra	radium 226/228
RPD	relative percent difference

SSB	spiked sediment bioassay
TCLP	toxicity characteristic leaching procedure
TDS	total dissolved solids
TOC	total organic carbon
TSS	total suspended solids
U	uranium
WET	whole effluent toxicity
Zn	zinc
%R	percent recoverable

**Federal Acts**

CECRA	Montana Comprehensive Environmental Cleanup and Responsibility Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPCRA	Emergency Planning and Community Right-to-Know Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
SARA	Superfund Amendments and Reauthorization Act
RCRA	Resource Conservation and Recovery Act

**Specific Systems**

BRES	Butte Reclamation Evaluation System
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFDMS	Clark Fork Data Management System
IRIS	Integrated Risk Information System
MGWPCS	Montana Groundwater Pollution Control System
MPDES	Montana Pollutant Discharge Elimination System
NPDES	National Pollutant Discharge Elimination System
NRIS	Natural Resource Information System
RMAP	Residential Metals Abatement Program

**Codes, Laws, and Legal Terms**

AOC	administrative order on consent
ARAR	applicable relevant and appropriate requirement
ARM	Administrative Rules of Montana
CFR	Code of Federal Regulations
CD	consent decree
CWL	critical water level
FR	Federal Register
HWIR	Hazardous Waste Identification Rule
IAG	interagency agreements
MOU	memorandum of understanding
MCA	Montana Code Annotated
NCP	National Contingency Plan
NPL	National Priorities List
ROD	record of decision

**Standards**

ASTM	American Society for Testing and Materials
As	arsenic
AWQC	Ambient Water Quality Criteria
DEQ-7	DEQ Circular No. 7

FWQC	Federal Water Quality Criteria
NBS-SRM	National Bureau of Standards-Standard Reference Material
NESHAPOP	National Emissions Standards for Hazardous Air Pollutants
WQB-7	Montana Water Quality Circular 7

**Physical Locations, Operable Units, and Designated Areas**

BAMAOU	Butte Active Mine Area Operable Unit
BMFBGCA	Butte Mine Flooding Bedrock Groundwater Controlled Area
BMFOU	Butte Mine Flooding Operable Unit
BPSOU	Butte Priority Soils Operable Unit
CGWA	Controlled Groundwater Area
GMMA	Granite Mountain Memorial Area
HSB	Horseshoe Bend
LAO	Lower Area One
MFOU	Mine Flooding Operable Unit
MSD	Metro Storm Drain
OU	operable unit
Pit	Berkeley Pit
Rocker OU	Rocker Timber Framing and Treatment Plant Operable Unit
SBC	Silver Bow Creek
SSTOU	Streamside Tailings Operable Unit
UCFRB	Upper Clark Fork River Basin
WQD	water quality district
WSP	Warm Springs Ponds
WSSOU	West Side Soils Operable Unit

**Measurement Units and Terms**

amsl	above mean sea level
bgs	below ground surface
cfs	cubic feet per second
cy	cubic yard
DTW	depth to water
ft	foot
GPCD	gallons per capita per day
gpd/ft	gallons per day per foot
gpm	gallons per minute
l	hydraulic gradient
in	inches
K	hydraulic conductivity
lb	pound
mgd	million gallons per day
mg/kg	milligrams per kilogram
mg/kg-day	milligrams per kilogram per day
mg/L	milligrams per liter
mcy	million cubic yards
mm	millimeter
mrem/yr	millirem/year
NGVD	National Geodetic Vertical Datum
NTU	nephelometric turbidity unit
pCi/L	picocuries/liter

ppb	parts per billion
ppm	parts per million
psf	pound-force per square foot
su	standard unit
TU	turbidity unit
UCL	upper confidence limit
µg/dL	micrograms per deciliter
µg/h	micrograms per gram
µg/L	micrograms per liter
µg/m3	micrograms per cubic meter
µmho/cm	micromhos per centimeter
yr	year

**Miscellaneous**

ACGIH	American Conference of Government Industrial Hygienists
AWWS	American Water Works Association
AWS	alternative water supply
CFRSSI	Clark Fork River Superfund Site Investigations
LAER	lowest achievable emission rate
NA	not applicable
NPV	net present value
NPW	net present worth
POTW	publicly owned treatment works
PSD	prevention of significant deterioration to be considered
TBC	threatened, endangered, and sensitive (species)
TES	threatened, endangered, and sensitive (species)
WQS	water quality standard

As always, EPA welcomes feedback and is happy to prepare a fact sheet or guide on a topic of interest. We will also update this list regularly.

## Questions, Comments, or Suggestions?

Feel free to contact any of the following EPA personnel:

**Nikia Greene**, Remedial Project Manager,  
406-457-5019, [greenes.nikia@epa.gov](mailto:greenes.nikia@epa.gov)

**Chris Wardell**, Community Involvement  
Coordinator, 303-312-6062,  
[Christopher.wardell@epa.gov](mailto:Christopher.wardell@epa.gov)

# Butte Acronyms

## A Handy Guide to Technical Acronyms used in Butte Area Superfund Documents

1994 to present

Acronyms are shorthand for much larger terms. When used appropriately, they ensure precision and make technical documents more readable.

In response to feedback, EPA tries to use shorthand only where it replaces something much more cumbersome and when it will be used repeatedly—not just two or three times.

We hope this guide is useful.

### Roles

CIC	community involvement coordinator
IQAT	independent quality assurance team
OSC	on-scene coordinator
PRP	potentially responsible party
RM	risk manager
RP	responsible party
RPM	remedial project manager
SHPO	State Historic Preservation Officer

### Investigations, Removals, and Evaluations

EE/CA	engineering evaluation/cost analysis
ERA	expedited response action
FFS	focused feasibility study
FS	feasibility study
N-TCRA	non-time critical removal action
RA	remedial action
RA	risk assessment
RD	remedial design
RI	remedial investigation
TCRA	time critical removal action

### Federal Agencies, Departments, and Other

ATSDR	Agency for Toxic Substances and Disease Registry
BOR	U.S. Bureau of Reclamation
CDC	Center for Disease Control
DOE	U.S. Department of Energy
DOJ	U.S. Department of Justice
EPA	U.S. Environmental Protection Agency (also USEPA)
FEMA	Federal Emergency Management Agency
FWS	U.S. Fish and Wildlife Service (also USFWS)
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
OSM	Office of Surface Mining
OSWER	Office of Solid Waste and Emergency Response
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USAO	U.S. Attorney's Office
USGS	U.S. Geological Survey

### Tribes

Tribes	Confederate Salish and Kootenai Tribes
--------	--

### State Agencies

BOM	Montana Bureau of Mines
DEQ	Montana Department of Environmental Quality (also MDEQ)
DNRC	Montana Department of Natural Resources and Conservation
DSL	Montana Department of State Lands
MBMG	Montana Bureau Mines and Geology
MDFWP	Montana Department of Fish, Wildlife, and Parks
MDHES	Montana Department of Health and Environmental Sciences
MDOJ	Montana Department of Justice

### Local Government

ADLC	Anaconda-Deer Lodge County
BSB	Butte Silver Bow County
CWSDR	County Water and Sewer District of Rocker

### Responsible Parties

ACMC	Anaconda Copper Mining Company
AERL	ARCO Environmental Remediation LLC
AR	The Atlantic Richfield Company (also ARCO)
ASARCO	American Smelting and Refining Company
BNSF	Burlington Northern Santa Fe Railroad
BP	British Petroleum
MR	Montana Resources
MR Group	Dennis Washington, MR, Montana Resources, Inc., AR Montana Corporation, and Asarco Incorporated

### Local Groups

CTEC	Citizen's Technical Environmental Committee
ETAG	Ecological Technical Assistance Group
MTAC	Montana Technical Assistance Committee
TAG	technical assistance group

### Consultants, Subcontractors, and Other Companies

BA&P	Butte, Anaconda, & Pacific Railway Company
CDM	CDM Federal Programs Corporation
CMSP	Chicago, Milwaukee, St. Paul and Pacific Railroad
HRA	Historical Research Associates
HWM	Hazardous Waste Management
MEI	Mussetter Engineering, Inc.
MSE-HKM	HKM Engineering, Inc.
NP	Northern Pacific
RRU	Reclamation Research Unit
UOS	URS Operating Systems, Inc.
UP	Union Pacific
URS	URS Greiner Woodward

### Risk Assessment Terms

AET	apparent effects concentration
BERA	baseline ecological risk assessment
BRA	baseline risk assessment
CDI	chronic daily intake
COA	co-occurrence analyses
COC	contaminant of concern
COPC	chemical of potential concern
CSF	carcinogenic slope factor
CTE	central tendency exposure
ERA	ecological risk assessment
ER-M	effects range - median
HEAST	Health Effects Assessment Summary Tables
HHRA	human health risk assessment
HI	hazard index
HQ	hazard quotient
IEUBK	Integrated Exposure Uptake Biokinetic
LOAEC	low observed adverse effect concentration
NEC	no effect concentration
RfD	reference dose
RME	reasonable maximum exposure
TLV	threshold limit value

### Plans and Documents

CIP	community involvement plan
CQAP	construction quality assurance plan
DASR	data acquisition summary report
DDRAWP	draft design remedial action work plan
DFDR	draft final design report
DRAWP	draft remedial action work plan
DSR	data summary report
ESD	explanation of significant differences
FDR	final design report
FDRAWP	final design remedial action work plan
FOP	field operations plan
FRAWP	final remedial action work plan
HSM	health and safety manual
HASP	health and safety plan
ICPD	institutional controls planning document
PBRA	preliminary baseline risk assessment
PDR	preliminary design report
QAPP	quality assurance project plan
RAMP	remedial action master plan
RAWP	remedial action work plan
RHPP	regional historic preservation plan
RI/FS	remedial investigation/feasibility study
SAP	sampling and analysis plan
SOP	standard operating procedure
SOW	statement of work
SEIP	statistical evaluation and implementation plan
SIP	state implementation plan
STARS	Streambank Tailing and Revegetation Study
TTSD	treatment technology screening document
UAO	unilateral administrative order

### Sampling, Waste Management, and Remediation Terms

AMD	acid mine drainage
BACT	best available control technology
BCT	best conventional pollutant control technology
BMP	best management practice
BPCTCA	best practicable control technology currently available
BPJ	best professional judgement
BTCA	best technology currently available
DDH	diamond drill holes
FSP	feed stockpiles
GIS	geographic information system
GP	poorly graded gravel
GRA	guide for reclaimed areas
HDS	high density sludge
HELP	Hydrologic Evaluation of Landfill Performance
IC	institutional control
ICMM	ICs, monitoring, and maintenance
MCL	maximum contaminant level
MCLG	maximum contaminant level goal
ML	silt or silt with sand
MWRR	mine waste relocation repository
O&M	operations and maintenance