



Warm Springs Ponds

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Environmental Protection Agency

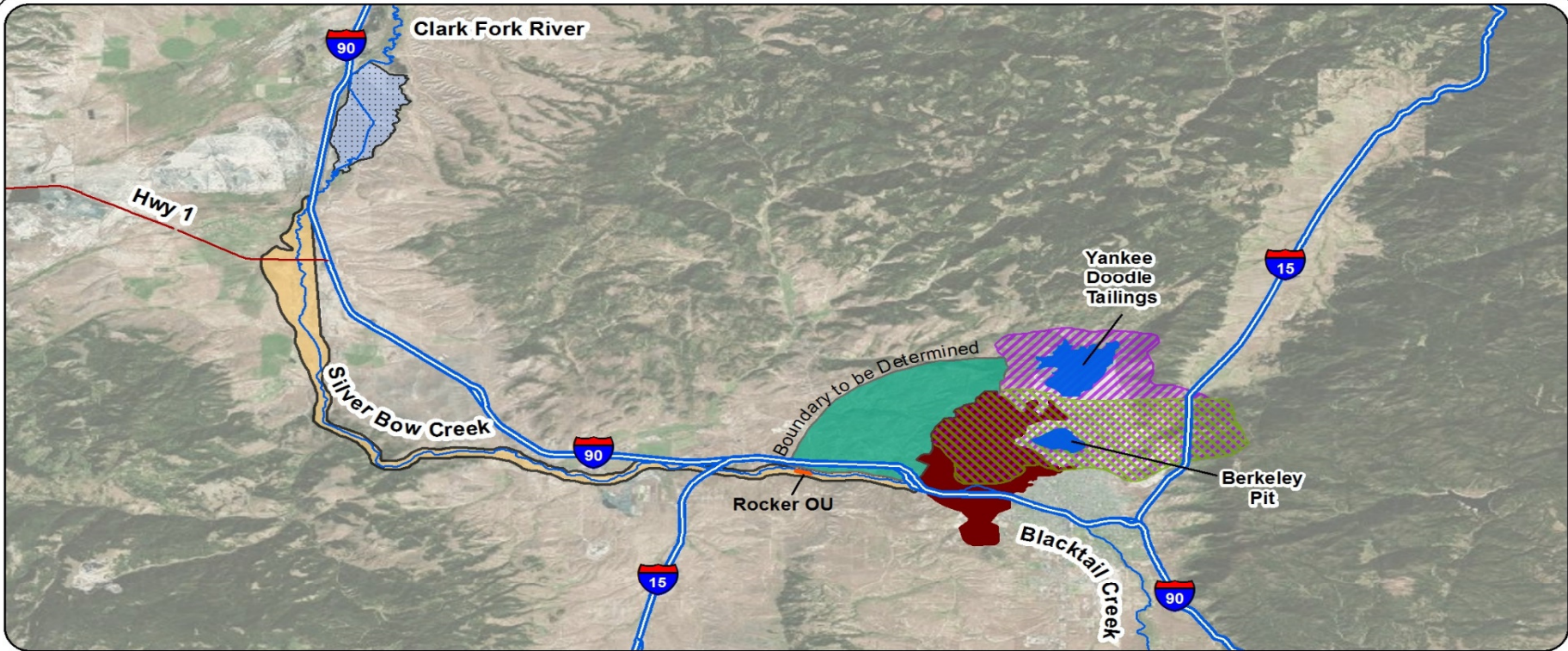
Agenda

Superfund
History

Interim
Remedy

Next Steps





Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, the GIS User Community, CH2MHill, Butte-Silver Bow Planning Department.

Legend

- Warm Springs Ponds Active and Inactive Areas (OUs 4 and 12)
- West Side Soils OU (OU13)
- Butte Mine Flooding OU (OU3) (approx.)
- Streamside Tailings OU (OU1) (approx.)
- Rocker OU (OU7)
- Active Mining Area (approx.)
- Butte Priority Soils Operable Unit (OU8)



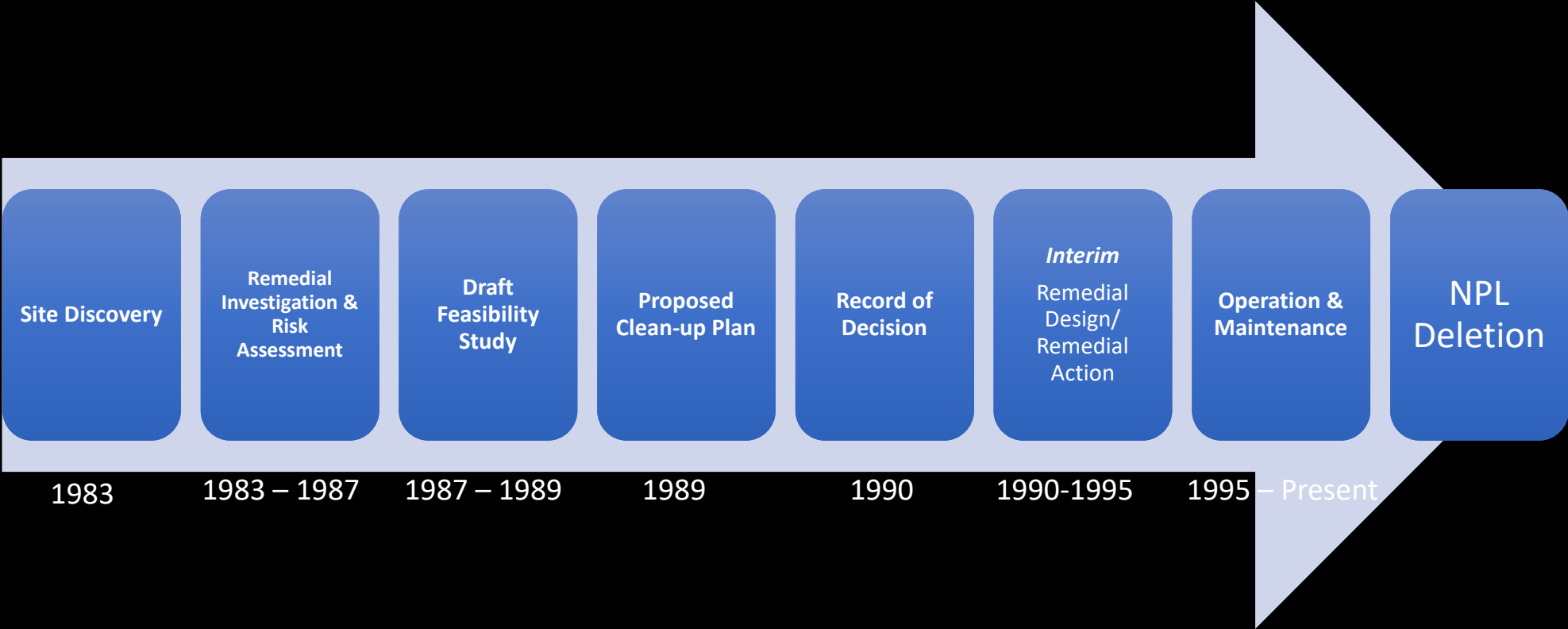
Silver Bow Creek/Butte Area Superfund Site
 City of Butte, Silver Bow County, Montana

History

- Warm Springs Ponds constructed to settle out and remove contaminated sediments transported down Silver Bow Creek from mining activities in Butte.
- Pond 1 in 1911, Pond 2 was constructed in 1916 and Pond 3 was built in the mid 1950's.
- The Warm Springs Ponds cover an area of approximately 4 square miles and contain an estimated **19,000,000 cubic yards** of mine tailings, wastes, and contaminated sediment from mining and smelting activities in Butte and Anaconda.

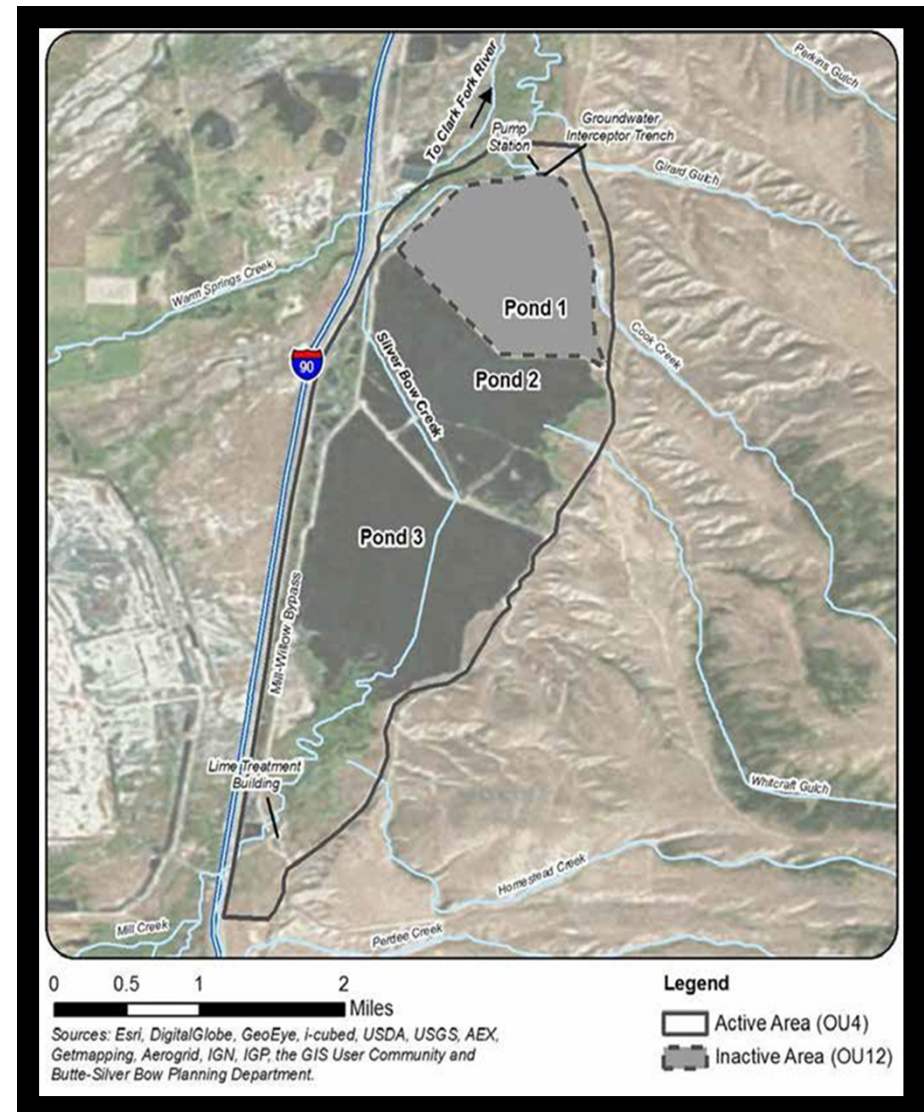


Superfund Process



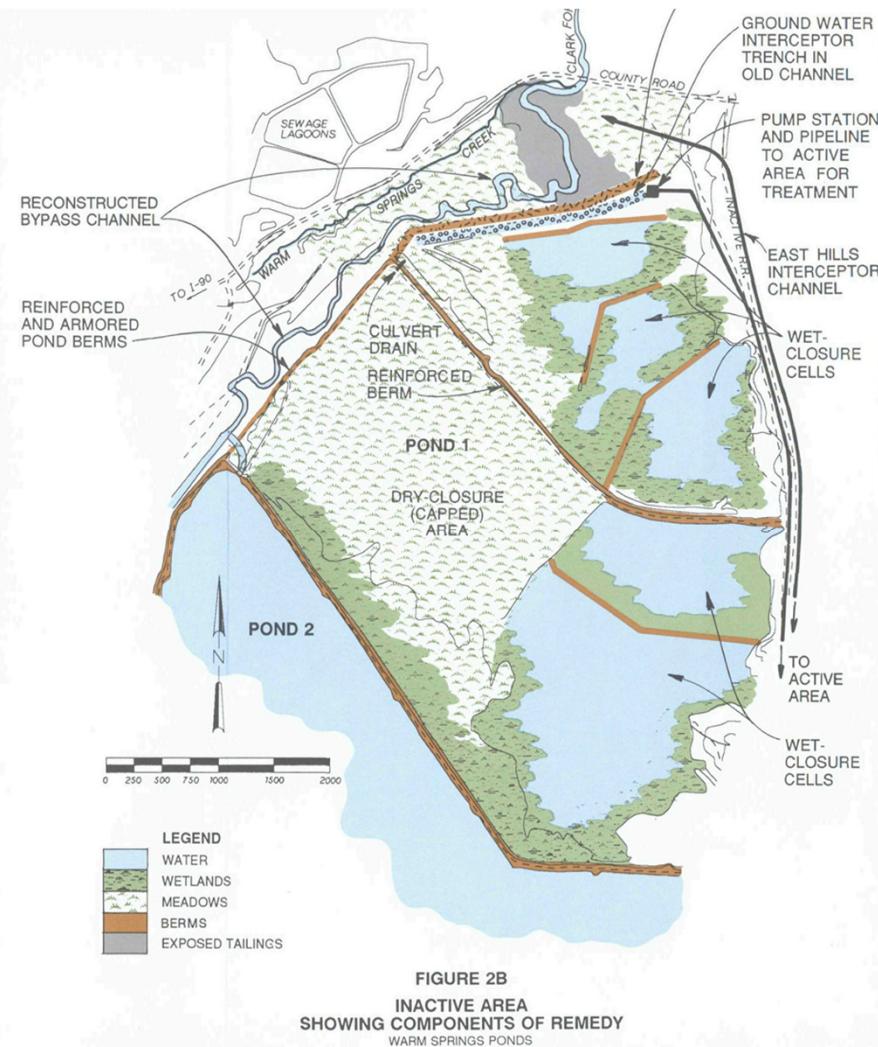
EPA decision documents

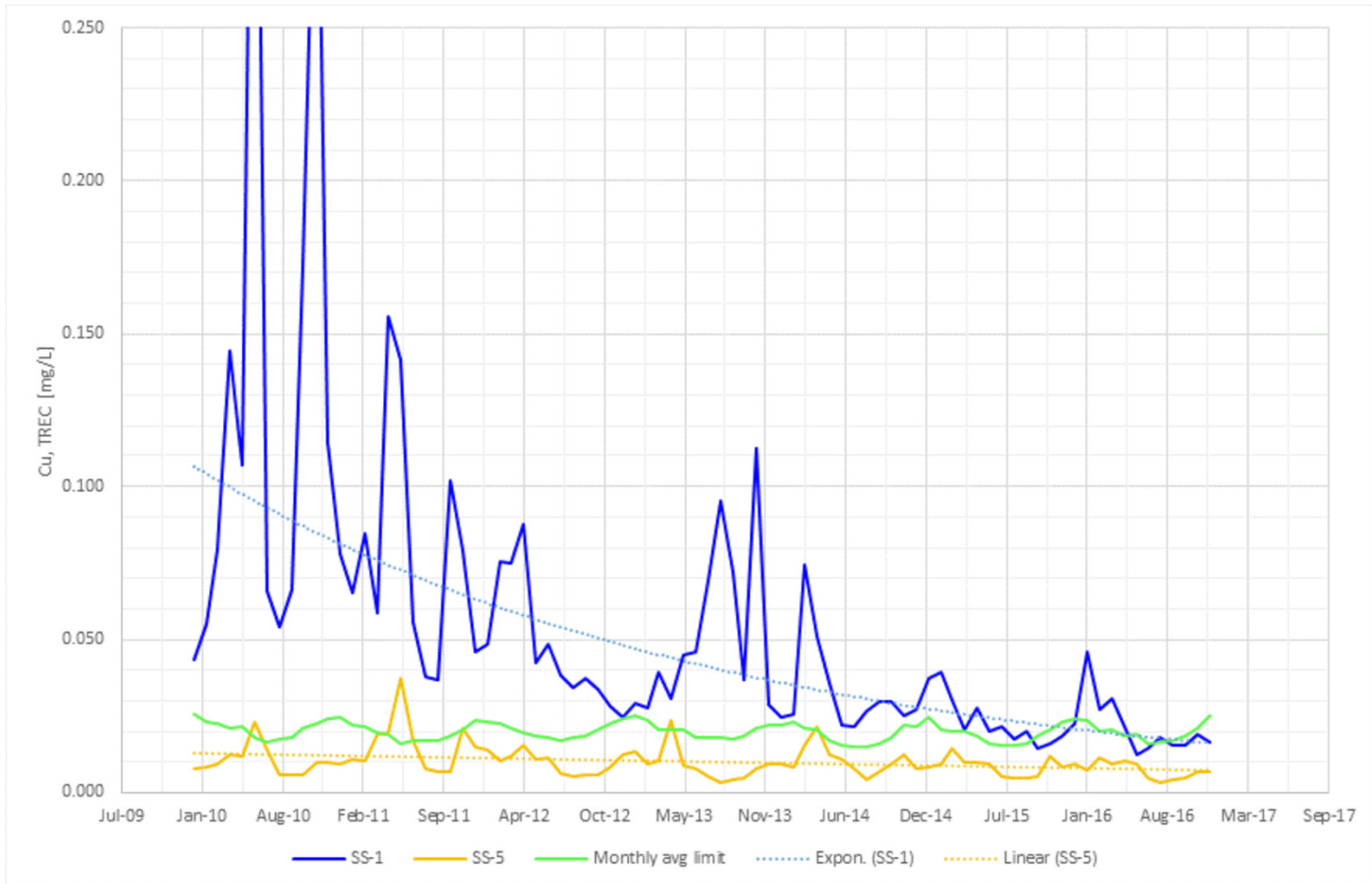
- 1990 Record of Decision
 - Interim remedial actions
 - Treat incoming water so that water leaving the system meets established water quality standards
 - Established that final remedy will be decided after upstream source areas remediated
- 1991 Explanation of Significant Difference
 - Created two operable units
 - OU4 – active area
 - OU12 – inactive area
- 1991 Unilateral Administrative Order for Active Area
- 1992 Record of Decision Inactive Area Operable Unit
- 1993 Unilateral Administrative Order



Construction of Interim Remedial Actions

- Mill-Willow Bypass Expedited Response Action
 - Remove contaminated sediments from the Mill-Willow Bypass
- Construction 1990-1995
 - Raising and upgrading berms to protect against floods and earthquakes, increasing the capacity of Pond 2 to accommodate the 100-year flood, upgrading inlet and hydraulic structures to prevent clogging by debris, implement surface and ground water quality monitoring systems, implement groundwater interception and pumpback system to prevent migration





Total Copper in WSPs Influent (SS-1) and Effluent (SS-5) (Monthly Averages, 2010-2016)

Five Year Reviews

Issue	Recommendation
Arsenic surface water standard seasonally exceeded in effluent.	Complete arsenic treatment optimization studies, and then determine if meeting Remedial Action Objectives is feasible.
New exposure pathways for wildlife/aquatic life may now be present.	Evaluate contaminant pathways.
Begin forward planning for the final Record Of Decision <ul style="list-style-type: none">• data collection efforts• updated risk assessments	Will be completed after upstream sources are completed or otherwise as appropriate.

What's Next?

Site Discovery

- Preliminary Assessment and Site Inspection
- NPL proposed listing

Remedial Investigation & Risk Assessment

- What and where are the risks?

Draft Feasibility Study

- How could it be cleaned up?

Proposed Clean-up Plan

- Present preferred cleanup option.
 - *Formal Public Comment Period*
 - Tribal Consultation
 - State Concurrence

Record of Decision

- How will it be cleaned up?
- Remedy Selection

Remedial Design/ Remedial Action

- Define how cleanup will be done.
- Carry out site cleanup.

Operation & Maintenance

NPL Deletion

Where can you get information?

- EPA website
- Information Repository - EPA Superfund Records Center & Montana Tech
- Citizens Technical Environmental Committee (CTEC) meetings
- Who to Contact:

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Superfund Site: SILVER BOW CREEK/BUTTE AREA BUTTE, MT

Superfund Home

- This Site's Home Page**
- Site Contacts
- Cleanup Activities
- Health & Environment
- Stay Updated, Get Involved
- Redevelopment
- Site Documents & Data
- View Site on Map

Announcements and Key Topics

The public comment period has concluded on the proposed plan for an amendment to the Butte Priority Soils Operable Unit Record of Decision. EPA will respond to the comments received in a responsiveness summary as part of any potential Record of Decision Amendment. This will be released in the fall of 2019.

- [Documents pertaining to the proposed plan »](#)

The proposed ...
[Continue reading announcements and key topics »](#)

Background

The Silver Bow Creek/Butte Area site is in and around Butte, Montana, and includes 26 miles of stream and streamside habitat downstream from Butte. Since the late 1800s, mining wastes ...
[Continue reading background »](#)

Site Contacts

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[View all site contacts »](#)

Site Location

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BUTTE, MT 59750

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