

Chapter 6. Treatment Plan and Implementation

Introduction

1 This chapter presents the treatment plan for
2 the rehabilitation and stewardship of Rush
3 Historic District. The treatment plan and
4 implementation are based on the evaluation
5 of three alternatives conducted by NPS staff
6 during a work session in February 2018. This
7 resulted in selection of a preferred alternative
8 and treatment approach representing the
9 NPS' preferred management action.

10
11 This treatment plan describes Rush Historic
12 District's desired future condition, and
13 identifies actions needed to implement
14 the plan. The treatment plan is presented
15 in narrative and graphic form to illustrate
16 intended actions.

17
18 The focus of the treatment plan is to preserve
19 Rush Historic District's archeological and
20 historic features, and guide stabilization
21 and repair of contributing features, spaces
22 and patterns. An emphasis is placed on
23 actions within Morning Star Community
24 landscape character area. This will provide
25 a comprehensive visitor experience to
26 improve understanding of the broad scale and
27 extent of historic mining operations and the
28 associated mining community.

29
30 Specific actions include stabilization of extant
31 contributing features, and preservation of
32 extant contributing ruins and foundations.
33 Repairs for circulation features and patterns,
34 small scale features, and vegetation patterns
35 are included. Within Morning Star Community
36 landscape character area, vegetation removed
37 from footprints of some non-extant buildings
38 and structures and markings will reveal
39 historic spaces and relationships. Additional
40 vegetation thinning, pruning, and some
41 removal along roads, at spoils and tailings
42 piles, and within some domestic spaces
43 will repair spatial organization. Repair of
44 domestic spaces include those in House Row

45 and at Morning Star Hotel, Mill, and Mine
46 Community. Mine adits, portals, and entrances
47 will continue to be secured. Vegetation will
48 be cleared at select locations at portals and
49 interpretation provided.

50
51 Existing visitor facilities will remain and be
52 improved for universal accessibility. A trail
53 extension will be added on Rush Mountain—
54 Rush Mountain Trail. Improvements will
55 be made to the campground, day use
56 facilities and parking including those at the
57 confluences of Clabber and Rush creeks with
58 Buffalo River.

59

60 Treatment Approach

61

62 The treatment plan follows a rehabilitation
63 approach. This provides for long-term
64 management of the historic mining landscape.
65 Actions focus on stabilizing contributing
66 features and repairing extant contributing
67 buildings. Measures to reveal selected
68 contributing spaces and vegetation patterns
69 are included. The rehabilitation approach
70 will provide an immersive visitor experience
71 within the historic mining setting reflective of
72 its period of significance of 1885 to 1931.

73

74 The treatment plan is presented in two
75 sections: Study Area and Morning Star
76 Community landscape character area.
77 An overall description of treatment
78 recommendations for the study area
79 is presented first. Detailed treatment
80 recommendations for Morning Star
81 Community landscape character area and its
82 three component areas are presented in the
83 second section.

84

85

86

87

88



Figure 6-1. The riparian corridors of Buffalo River (above) and Rush and Clabber creeks (below) will be preserved and repaired. (Mundus Bishop, 2017)

Treatment Plan - Study Area

1 Treatment recommendations for the	45	
2 study area guide the repair, preservation	46	
3 and stewardship of Rush Historic District	47	
4 cultural landscape as a whole. The	48	
5 recommendations are presented for nine	49	
6 landscape characteristics: Natural Systems	50	
7 and Features; Archeological Site; Land Use;	51	
8 Cluster Arrangement, Topography, and Spatial	52	
9 Organization; Circulation; Buildings and	53	
10 Structures; Mines and Mine Complexes; Small	54	
11 Scale Features; and Vegetation.	55	
12	56	
13 Natural Systems and Features	57	
14	58	
15 The natural systems and features of Rush	59	
16 Historic District, located with the Ozark	60	
17 Plateau, will be preserved. The steep hills	61	
18 and river valleys of Buffalo River and its two	62	
19 tributaries—Rush and Clabber creeks—	63	
20 will be protected. The study area's karst	64	
21 geology that spurred extraction of the	65	
22 country's highest grade zinc ore during late	66	
23 19 th century and early 20 th century will be	67	
24 protected. The study area's native ecology of	68	
25 geological and biological features including	69	
26 plants and wildlife habitat will be protected.	70	
27 Features resulting from natural processes, i.e.,	71	
28 sinkholes, caves or springs, will be monitored	72	
29 and protected. Modifications to landforms	73	
30 or features made during the period of	74	
31 significance will be preserved.	75	
32	76	
33 • Sinkholes, caves, or springs resulting	77	
34 from natural processes or from man-	78	
35 made modifications associated with zinc	79	
36 mining and occurring within the period	80	
37 of significance will be monitored and	81	
38 protected.	82	
39	83	
40 • Contributing features such as the	84	
41 landforms of the spoils and tailings piles	85	
42 will be stabilized where needed for safety	86	
43 or to retain the feature.	87	
44	88	
		—Ore extraction and milling resulted in massive spoils and tailings piles that remain. Vegetation removal, thinning and pruning will be done to assist in revealing the extent and scale of these features, and to distinguish them from native hills.
		—Erosion control and soil stabilization may be required to stabilize these as contributing features and to minimize run-off and erosion.
		• Native vegetation and habitat will be preserved, and further study and research conducted.
		—Measures to provide and protect bat habitat at mines will continue. Metal grates will remain where they exist today, but no new grates will be added to mines, i.e., Red Cloud Mine, where mine adits, portals, and entrances are currently open.
		—Removal, thinning or pruning of native vegetation will be allowed within areas of cultural significance, as recommended by this treatment plan.
		—The Cherokee Medicine Keepers plant gathering group will be allowed access to the study area to document, and possibly collect plants of medicinal, economic or spiritual value. They will be allowed access to these vegetation communities, but locations of their findings will not be publicized to protect plant communities.
		• The riparian corridors of Buffalo River and its two tributaries, Rush and Clabber

creeks, will be preserved. Riparian vegetation will be repaired. Damage from erosion, pollution, man-made features, and invasive species will be repaired.

- Lower Buffalo Wilderness will be preserved. No vehicular access, new pedestrian access, or vegetation thinning, pruning or removal will be allowed within the wilderness boundary.

- Existing natural drainage patterns will remain. Natural drainages will be protected from erosion or damage.

Archeological Sites

Prehistoric and historic archeological sites within Rush Historic District will be protected. Further study, additional research, and archeological investigations will be conducted to determine the extent and location of resources associated with the historic mining landscape. Similar actions will be taken to identify and protect prehistoric archeological sites. The study area's many ruins will be preserved, stabilized, and repaired as needed to retain these as the last vestiges of mining related structures, features, and buildings that are no longer extant.

- Known prehistoric and historic archeological sites will remain and be preserved. Further research, surveys, investigations, and documentation will be conducted as independent work or as part of other projects.

- Measures to identify historic archeological sites associated with mining will be undertaken to more fully document the extent and location of below grade resources. Measures may include non-invasive techniques such as LIDAR or magnetic surveys.

- Archeological investigations and excavations of any type within Rush Historic District will occur in consultation with the park archeologist. Where appropriate, other agencies (MWAC, SHPO or federally recognized tribes) will be included in consultations.

- Prehistoric archeological sites have not been completely investigated within the study area, and other sites are likely to be identified. All likely contain intact, buried archeological deposits that have the ability to provide additional information on prehistoric lifeways and adaptations to the Ozark Highlands.

- Identification of prehistoric and historic archeological sites, features, and ruins will be completed prior to vegetation thinning, pruning, removal, or repair within or near contributing features, spaces, or remnants.

- Measures may include monitoring by the park archeologist or by conducting additional research, investigations, and surveys.

- Ruins will be preserved. Stabilization and repairs will be undertaken dependent on each feature's existing condition.

- Measures to protect ruins from further damage from water or weather will be taken.

- Stabilization or repair of a ruin will be completed where possible to extend the lifespan of the ruin. Full repair or restoration to represent the ruin's historic condition is not recommended.

- Physical markings or other measures to interpret ruins or below grade resources

associated with the historic mining landscape may be undertaken.

- Markings or other means of identifying building or structure footprints at the surface may be used to illustrate the historic patterns of a site or place.
- Revealing extant foundations or walls or exposing ruins and protecting and maintaining them alone or as part of another strategy may be accomplished as well.
- Interpretive signage or identification of a feature may be part of a stabilization strategy. Narrative text and/or historic photographs can assist in understanding the historical condition and significance.

Land Use

Rush Historic District is a component of Buffalo National River with a current land use as a national park. A portion of the study area is a designated wilderness area—Lower Buffalo Wilderness. As a NRHP district, the study area’s historic land uses are significant to its management and interpretation. Historic land use including mining, resource extraction, milling operations, housing, retail, and lodging will be preserved.

- The study area’s historic land use patterns and features will be preserved. Repair of features, spaces and patterns that express historic land use will be undertaken.
- New recreational or interpretive features will be designed and located to avoid or minimize disruption to historic land use patterns and features.

Cluster Arrangement, Topography, and Spatial Organization

Rush Historic District’s distinct pattern of development, along with built features, spaces, and patterns associated with the historic zinc mining industry, will be protected. Historic patterns and relationships between mines and mine complexes and between mining operations and community life will be preserved. Views between some will be repaired. Interpretive measures will assist visitors to “see what can’t be seen.”^{5.1}

- The historic development pattern of Rush Historic District will be preserved by protecting extant contributing features, and through measures that will reveal the study area’s historic arrangement, topography, and spatial relationships.
- Selected views will be repaired through vegetation thinning and pruning. This will restore historic spatial relationships between mines and mine complexes, community life, and between extant contributing features, i.e., spoils and tailings piles. Selected views will repair relationships between mines set high on the hillsides (at the same or consistent elevation) with mills located below, and community life set lower in the relatively flatter bottomlands of the river and creek valleys.
- Interpretation measures related to “virtual access through digital, cross-platform 3-D media will be included to allow audiences to “see what can’t be seen.”^{5.2} Interpretive information will assist in understanding the relationship between the mining, milling, and transport processes, and the study area’s

^{5.1} LRIP, 41.

^{5.2} LRIP, 41



Figure 6-2. Interpretive information will assist in understanding the relationship between the mining, milling, and transport processes, and the study area. With limited cell service, an application or program may needed to be downloaded or provided at the visitor center. (Mundus Bishop 2018)

topography as well as how the community functioned. With limited cell service, an application or program may be needed to be downloaded or provided at the visitor center.

- Measures to mark selected non-extant spaces, building footprints, and features will assist in preservation of features. Markings can assist in revealing the broad extent and complexity of the historic zinc mining industry. Most markings will be within Morning Star Community landscape character area.
- Natural features and contributing features will be preserved. Mining-related man-made modifications to the natural topography, such as spoils piles, will be preserved. Preservation of below-grade archeological features and sites, along with stabilization and repair of contributing features will be undertaken.
- Mines and mine complexes on the east side of Buffalo River will be protected. Features associated with Red Cloud Mine Complex (M3), Lonnie Boy Mine (M5), and Silver Hollow Mine (M9) will be obscured. No visual or physical access would be allowed.

Circulation

Rush Historic District's contributing roads and trails will be preserved, stabilized, and repaired to function as they do currently. Modifications will be undertaken to improve visitor access and experience at Rush Landing, Clabber Creek Road and Trail, New White Eagle Mill, and Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12). Roads will not be widened or extensively modified. Pedestrian only trails will continue to be for pedestrian use only. Improvements include universal accessibility

to existing visitor facilities, and to selected areas where views of mill ruins would be visible.

- Rush Road will be preserved along its historic alignment. Where appropriate, the road surface will be narrowed to historic widths, and repaired using a soft surface (gravel) material. Rush Road will continue to be a shared vehicular and pedestrian route as it was historically, and as occurs currently.
- Clabber Creek Road will be preserved along its historic alignment. The road surface will be repaired to adequately provide vehicular access to an improved day use area at the confluence of Clabber Creek and Buffalo River. A soft surfaced (gravel) parking and vehicular turn-around with a gate will be built to improve picnicking and day uses. Clabber Creek Road north of the gate will be narrowed and resurfaced to become a pedestrian only trail from the parking to connection with Clabber Creek Trail (Clabber Creek Road Trail).
- Pedestrian only trails will continue to be for pedestrian use only. Mine Level Trail will be preserved along its current alignment. Repairs to pedestrian trails will be made as needed.
- A new trail—Rush Mountain Trail—will provide a loop route for pedestrians on Rush Mountain. This new trail will be of a similar width and surfacing as existing pedestrian trails. Rush Mountain Trail will connect Monte Cristo Mine (M10) with Morning Star Mine (M1).
- Universal access would be provided for mobility impaired visitors at existing facilities. This will include improvements to non-contributing trails and facilities to ensure universal accessibility.



Figure 6-3. A new pedestrian trail to Yellow Rose Mine Complex (M7) (above) and Edith Mine Complex (M12) (below) will provide an ABAAS compliant route. (Mundus Bishop, 2017)

- An ABAAS pedestrian route and parking will provide universal accessibility to the existing comfort station and shelter at Rush Landing.
- A new pedestrian trail to Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12) will provide an ABAAS compliant route.

- The existing boat ramp and parking at Rush Landing at Buffalo River will remain to provide river access for visitors.
- Parking and vehicular access will be improved at New White Eagle Mill for additional day use. A new trail will be built to connect visitor parking to Mine Level Trail.

Buildings and Structures

The study area's buildings and structures are NPS built features that provide visitor amenities and facilities. These features support recreational activities associated with the Rush Landing, Rush Campground, and trails. All will remain.

- Visitor facilities and amenities will remain and improvements made where needed. These non-contributing features include two comfort stations, kiosks, and a shelter. These are generally located at Morning Star Trail parking, Rush Landing, and Rush Campground.
- The many buildings and structures built during the period of significance remain predominantly as ruins. These will be preserved in situ, and stabilized and repaired according to their condition.

Mines and Mine Complexes

Mines and mine complexes associated with the study area's ten mining companies and fourteen zinc mines (eleven of which are in the study area), which operated between 1885 and 1962, will be preserved. Measures to protect mining resources, including spoils and tailings piles will be taken. Actions to provide visitor safety while allowing for some enhanced interpretation will be included. Mines and mine complexes on the east side of Buffalo River will be obscured, and no visual or physical access allowed.

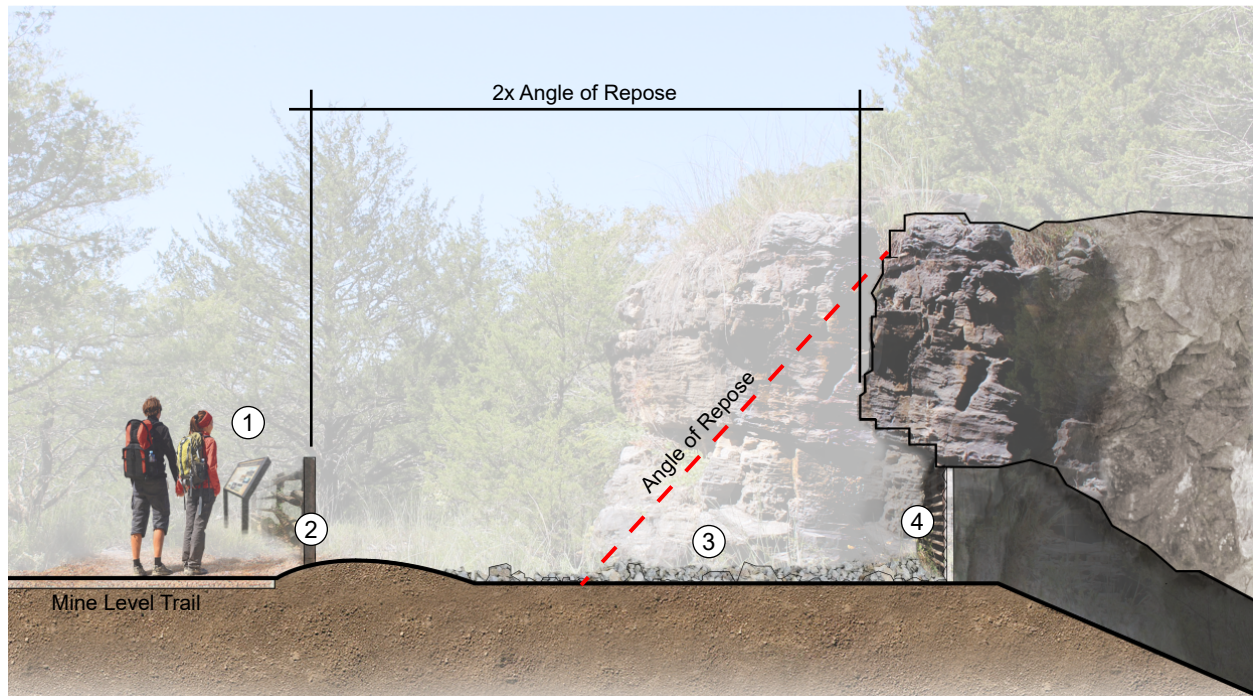
- Mines will be preserved and protected. This includes all types of mine development within the study area—horizontal, vertical, and open-pit mines. Features, such as stone portals associated with room-and-pillar construction, vertical shafts associated with vertical construction, and spoils piles associated with open-pit mines, will be preserved in situ. All mines will be closed. No physical access will be allowed.

- Mine adits, portals and entrances will continue to be secured by existing metal grates. Most will be obscured with vegetation. These grates will remain as they also provide bat habitat.

- Deep holes, sink holes, and depressions associated with vertical mines will be monitored and secured where needed. These are generally outside visitor areas. Measures will be taken to orient visitors away from known and potential features.

- Specific mines, as determined by park staff, will be allowed to be visible to Mine Level Trail users.

- At adits, portals, or entrances, vegetation will be cleared and a low



Legend

- ① Interpretive and Regulatory Signage
- ② Low Barrier
- ③ Vegetation Management
- ④ Existing Metal Grate

Figure 6-4. At adits, portals, or entrances, vegetation will be cleared and a low barrier added, set outside the angle of repose from the face of the opening. Interpretive and regulatory signage will warn visitors of hazards. (Mundus Bishop, 2018)

barrier added, set outside the angle of repose from the face of the opening. Interpretive and regulatory signage will warn visitors of hazards.

– At the Morning Star Mine (M1) open cut, the extant spoils pile will be preserved. An interpretive wayside will be added to view this type of historic zinc mining.

- Mines and mine complexes on the east side of Buffalo River—Red Cloud Mine Complex (M3), Lonnie Boy Mine (M5), and Silver Hollow Mine (M9)—will be obscured. No visual or physical access will be allowed.

- Ruins and spaces associated with the study area’s seven zinc concentrating mills will be preserved. Stabilization and repair will be done at specific mills or for selected features, as determined by park staff. These measures will reveal the extent of development of mills, the largest and most prominent buildings and structures due to their elevated position and lack of surrounding trees. Concentrating mills were associated with Morning Star Mine (M1), White Eagle Mine (M2), Red Cloud Mine (M3), McIntosh Mine (M5), Yellow Rose Mine (M7), and Edith Mine (M12). Philadelphia Mine (M4) included a non-extant mill located across Clabber Creek from Monte Cristo Mine, the Mill is in study area, Philadelphia mine is not.

– Ruins associated with concentrating mills such as McIntosh Mill will be preserved.

– Selected ruins, i.e., Edith Mill’s massive pyramidal concrete pier foundations and others as determined by park staff, will be stabilized and repaired.

– Mill ruins to be stabilized and repaired are Morning Star Mill, Yellow Rose Mill, and Edith Mill.

– Spaces associated with mines and mine complexes will be repaired and interpreted. Most of this work will be in Morning Star Community landscape character area.

- Further study, additional research, and investigations will be conducted to protect mines and mine complexes and to determine the extent and location of contributing resources.

Small Scale Features

The study area’s contributing small scale features will be preserved. Selected features will be repaired and stabilized. Others will be allowed to decay. Non-contributing small scale features for visitor safety, wayfinding, and interpretation will remain.

- Contributing small scale features, the ore cart on the Mine Level Trail, adjacent to Capps Mine (M11), remnant fencing, and stone retaining wall, would be preserved and monitored.

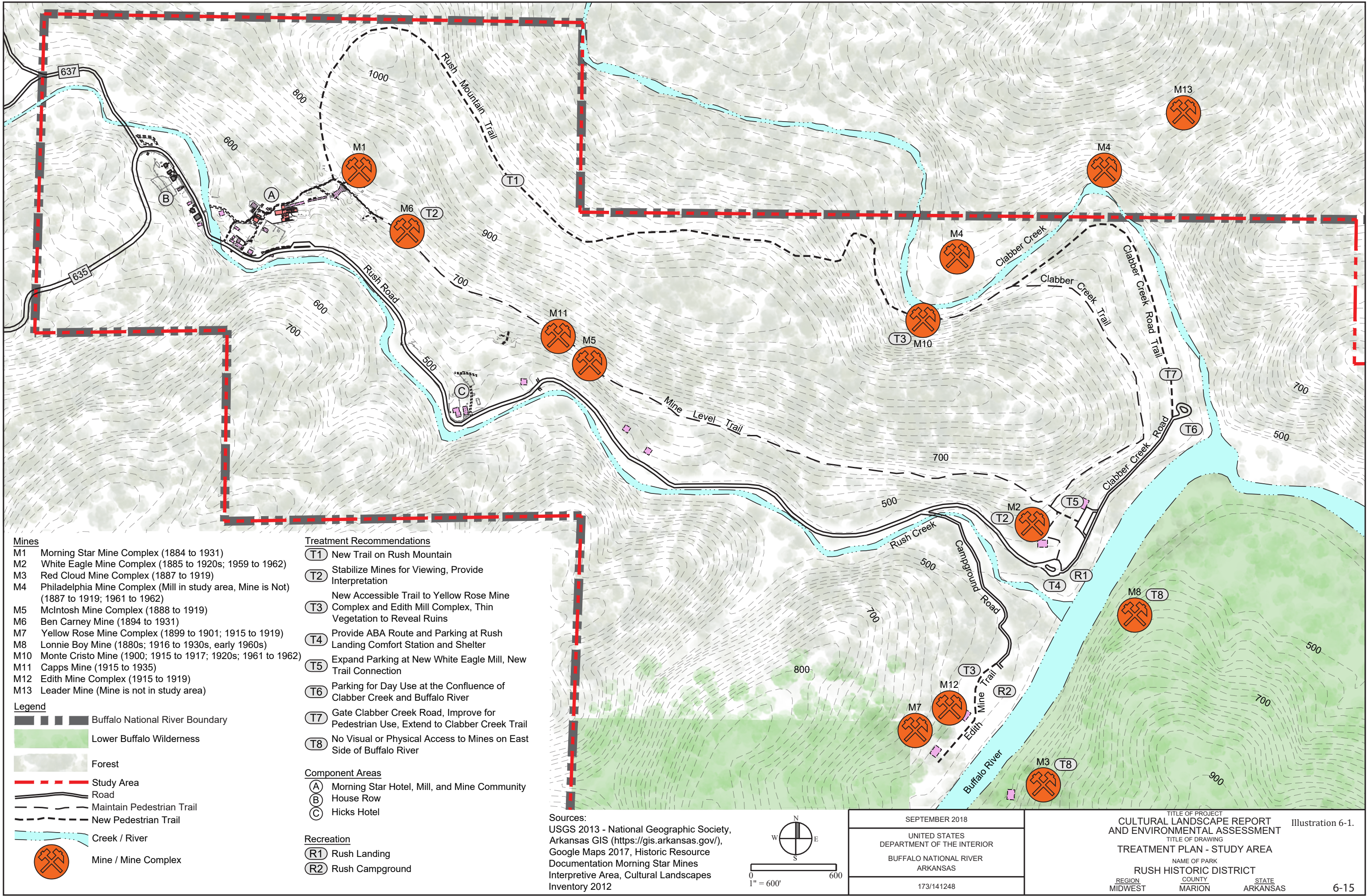
- Some contributing small scale features will be stabilized, depending on condition and location. Stabilization may be associated other repair measures, or with other markings and vegetation management. If the condition of a feature becomes critical or very poor, it may be allowed to be documented and then removed.

– For example, many fencing remnants on hillsides and around non-extant structures have deteriorated with decayed wood posts and wire fencing on the ground.

- 1 • Stone walls associated with building
 - 2 ruins, including those associated with
 - 3 a mill will be stabilized and repaired,
 - 4 depending on location and condition.
 - 5
 - 6 • New small scale features, such as those
 - 7 that assist in wayfinding or visitor safety,
 - 8 will be designed to be compatible with the
 - 9 historic mining landscape.
 - 10
 - 11 • Non-contributing features, such as
 - 12 chainlink fencing, will be removed and
 - 13 replaced with new features in a style and
 - 14 character compatible with the historic
 - 15 mining landscape.
 - 16
 - 17 **Vegetation**
 - 18
 - 19 Vegetation management will reveal selected
 - 20 contributing spaces, features, views,
 - 21 and relationships currently obscured by
 - 22 overgrown vegetation. This vegetation has
 - 23 primarily grown in since the end of the
 - 24 period of significance. Vegetation thinning,
 - 25 pruning, and some removal will be completed
 - 26 to preserve and repair selected contributing
 - 27 spaces, building ruins and features. This will
 - 28 also enhance visitor understanding of the
 - 29 historic mining landscape.
 - 30
 - 31 • Overgrown vegetation will be pruned or
 - 32 thinned, with some removal, in selected
 - 33 locations to repair historic patterns. This
 - 34 will be primarily at the once open spaces
 - 35 of selected mines and mine complexes,
 - 36 along contributing roads repurposed
 - 37 as pedestrian only trails, and where the
 - 38 community developed historically.
 - 39
 - 40 – Vegetation management will primarily
 - 41 remove trees and understory shrubs
 - 42 from contributing building ruins, i.e.,
 - 43 foundations, ruins (structures and
 - 44 features), tailings and spoils piles, and
 - 45 where vegetation obscures selected
 - 46 views of some contributing features.
- 47
 - 48
 - 49
 - 50
 - 51
 - 52
 - 53
 - 54
 - 55
 - 56
 - 57 • Vegetation will be thinned at Yellow
 - 58 Rose Mill ruins, and Edith Mill ruins to
 - 59 reveal contributing features, i.e., concrete
 - 60 pier foundations, and spaces. Views
 - 61 and relationships between these mills
 - 62 and associated mining operations and
 - 63 residential living will be opened up by
 - 64 vegetation management.
 - 65
 - 66 • Vegetation management on the east
 - 67 side of Buffalo River and within Lower
 - 68 Buffalo Wilderness will follow the park's
 - 69 best practices. No physical access will be
 - 70 allowed, including vegetation removal.
 - 71
 - 72 • Vegetation management could be
 - 73 sustained over time through regular
 - 74 thinning and maintenance, augmented by
 - 75 specialized methods such as controlled
 - 76 burns.
 - 77
 - 78
 - 79
 - 80
 - 81
 - 82
 - 83
 - 84
 - 85
 - 86
 - 87
 - 88
 - 89
 - 90
 - 91
 - 92
- Low growing grasses and herbaceous species will be planted and maintained in cleared areas to minimize erosion, and to reveal spaces and features.
 - Invasive non-native species will be removed to the extent possible, using biologically safe methods.
 - Areas recommended to remain open, within the study area but outside the wilderness boundary, may be managed through mechanical methods, fire suppression, and prescribed burns methods.
 - Managing exotic species through mechanical and physical removals will be included in any vegetation thinning or removal. Measures will be taken to ensure seed banks in dormant soils do not become an issue during growing seasons.

- The Cherokee Medicine Keepers plant gathering group will be allowed access to the study area to document, and possibly collect plants of medicinal, economic or spiritual value. They will be allowed access to these vegetation communities, but locations of their findings will not be publicized to protect plant communities.

This Page Intentionally Left Blank



Treatment Plan - Morning Star Community Landscape Character Area

1 This landscape character area was historically
2 the most intensely developed portion of Rush
3 Historic District. It is described according
4 to three component areas: Morning Star
5 Hotel, Mill, and Mine Community, House Row,
6 and Hicks Hotel. Collectively, they include
7 the study area's greatest amount of extant
8 resources, and all of its standing buildings.

9
10 Morning Star Community landscape character
11 area is most easily accessed to visitors. As
12 such, it offers a great opportunity to reveal
13 and understand the broad scale and extent of
14 mining operations and the mining community
15 that existed at Rush Historic District.

16
17 The treatment plan emphasizes actions
18 that will preserve and repair contributing
19 patterns, features, and relationships of
20 Morning Star Community landscape character
21 area. Prominent features of the Morning Star
22 Hotel, Mill, and Mine Community would be
23 marked and interpreted—ruins of Morning
24 Star Mill, Morning Star Mine Office, Chase
25 and Mulholland Store, and scale pit. Extant
26 buildings will be preserved and stabilized.
27 Other building ruins, ruins (structures or
28 features, traces, and below grade features will
29 be preserved.

30 31 **Cluster Arrangement, Topography, and** 32 **Spatial Organization**

33
34 Morning Star Community landscape character
35 area's pattern of development, and its
36 contributing features and spaces will be
37 protected. Historic patterns and relationships
38 between mines and mine complexes and
39 between mining operations and community
40 life will be repaired. Interpretive measures
41 will assist visitors in visualizing the historic
42 mining landscape.^{5.3}

5.3 LRIP, 41.

- 44 • Spaces associated with Morning Star Mine
45 Complex (M1) will be repaired to better
46 articulate the mass and scale of each
47 historic space, and to reestablish historic
48 views or relationships.

49 50 **Circulation**

51
52 The landscape character area's circulation
53 patterns and features will be preserved.
54 Repairs will be made to reestablish historic
55 alignments, materials, and character. Rush
56 Road, the main vehicular route, abandoned
57 roads in the Morning Star Hotel, Mill, and
58 Mine Community, Hicks Hill Road Trace, and
59 Morning Star Trail will be preserved and
60 repaired as contributing features.

- 61
62 • Rush Road will be preserved along its
63 historic alignment. Where appropriate,
64 the road surface will be narrowed to
65 historic widths, and repaired using a soft
66 surface (gravel) material.
67
68 – Rush Road will continue to be a
69 shared vehicular and pedestrian route
70 as it was historically.
71
72 – Connections to other contributing
73 features will be preserved and
74 repaired, i.e., driveways at House Row
75 and abandoned roads.
76
77 • Pedestrian only trails will continue to be
78 for pedestrian use only.
79
80 – Mine Level Trail will be preserved
81 along its current alignment. Repairs
82 will be made as needed.
83
84 – Morning Star Trail will be realigned to
85 avoid crossing contributing features,
86 ruins, and spaces—Morning Star Mill

1	ruins and Morning Star Mill Stone	47	– Contributing ornamental plantings
2	Retaining Wall. A new trail alignment	48	including daffodils, daylilies, and
3	will provide pedestrian access	49	flowering quince at House Row and
4	between parking and Morning Star	50	Hicks Hotel will be preserved.
5	Mill.	51	
6		52	– Further research will be done to
7	– An ABAAS compliant pedestrian route	53	identify other historic plantings that
8	and parking will connect Morning Star	54	may have included roses, lilac, grape
9	Trail parking west to Morning Star	55	hyacinths, forsythia, Russian olive,
10	Livery Barn ruins and Morning Star	56	and mimosa. ^{5.4}
11	Hotel ruins.	57	
12		58	• Trees and understory vegetation will be
13	• Selected contributing roads will be	59	removed from contributing buildings,
14	repurposed as pedestrian only trails.	60	building ruins, ruins, and where
15	These include abandoned roads to	61	vegetation obscures selected views of
16	Morning Star Mill and Hicks Road Trace.	62	some contributing features.
17	Roads will be repaired to historic widths,	63	
18	and vegetation will be removed. Materials	64	• Overgrown vegetation will be pruned
19	will be repaired to be soft surfacing in	65	or thinned, with some removal, in
20	compatible or historic materials.	66	selected locations. These include once
21		67	open spaces, along contributing roads,
22	• A wayside or overlook for pedestrians will	68	and where the community developed
23	be added at the top of the Morning Star	69	historically.
24	Mine spoils pile, and accessed from Mine	70	
25	Level Trail.	71	• Vegetation will be managed to protect
26		72	contributing features, reveal contributing
27	Vegetation	73	spaces and building footprints, and in
28		74	historic vegetation patterns.
29	This landscape character area's oak hickory	75	
30	forest on the hillsides of Rush Mountain	76	– Low growing grasses and
31	will remain, and in general be managed	77	herbaceous species will be planted
32	according to the park's best practices.	78	and maintained in cleared areas
33	Overgrown vegetation that obscures selected	79	to minimize erosion, and to reveal
34	contributing spaces, features, views, or	80	spaces and features.
35	relationships will be thinned, pruned or	81	
36	removed.	82	– Invasive non-native species will be
37		83	removed to the extent possible, using
38	• Vegetation that contributes to Rush	84	only biologically safe methods.
39	Historic District's historic character	85	
40	including historic trees, and evidence of	86	• Citrus trees at Clabber Creek Road will be
41	gardens and perennial plantings, will be	87	documented and maintained.
42	preserved.	88	
43		89	
44	– Contributing trees near the former	90	
45	Courthouse site and Morning Star	91	
46	Livery Barn ruins will be protected.	92	5.4 Botanical Survey of 67 Acres and Recommendations.

1 Treatment Plan - Morning Star Hotel, Mill, 2 and Mine Community

3
4 Morning Star Hotel, Mill, and Mine
5 Community will be preserved. Its historic
6 patterns and relationships and contributing
7 spaces will be repaired. Contributing features,
8 the most within the Rush Historic District,
9 will be stabilized and repaired.

10 11 Spatial Organization

12
13 The setting and relationships of Morning Star
14 Hotel, Mill, and Mine Community, on the south
15 slope of Rush Mountain, will be preserved.
16 This setting will be repaired to more fully
17 reveal the quintessential relationships of
18 Rush Historic District.

19
20 Building ruins and spaces near Rush Road are
21 related to community life, i.e., Morning Star
22 Hotel ruins, Lyons House ruins, Post Office
23 ruins, Morning Star Livery Barn ruins, and
24 Courthouse site. Uphill are mill related uses
25 including Rush Blacksmith Shop, Morning
26 Star Mine Office ruins, Chase and Mulholland
27 Store ruins, and Warehouse ruins. East, and
28 uphill of Morning Star Mine Office ruins, is
29 Morning Star Mill ruins set on a level terrace.
30 Further uphill is Morning Star Mine (M1).

31
32 • The setting of Morning Star Mill, on a level
33 terrace slightly uphill and east of Morning
34 Star Mine Office and oriented parallel
35 to hillside contours, will be preserved.
36 Spatial relationships between the mill
37 above, the mill's tailings piles (south and
38 downhill), and with the community below
39 will be repaired.

40
41 • Vegetation will be cleared from mill and
42 tramway ruins. Historic building spaces
43 will be identified. Measures will include
44 defining footprint's of building ruins by
45 revealing extant features or by marking
46 the footprint with new compatible
47 materials.

48 • Interpretation of the Morning Star Mine
49 Complex (M1) may include virtual access
50 through digital, cross-platform 3-D media
51 to allow visitors to visualize the historic
52 setting, the scale and mass of the mill
53 and mine operations, and relationships
54 between uses.^{5.5}

55
56 • A simple 3-dimensional marking, built of
57 simple compatible materials may mark
58 building corners, spaces or features
59 to further express the mass, scale and
60 frame of the non-extant mill building and
61 tramway.

62
63 • The setting of the Morning Star Hotel
64 ruins will be repaired and interpreted.

65
66 –Vegetation will be cleared from
67 building ruins and historic building
68 spaces identified. Foundations of
69 non-extant buildings will be marked
70 by revealing extant foundations or by
71 using new compatible materials.

72
73 –Vegetation will be removed from
74 portions of the pasture around
75 Morning Star Livery Barn ruins.

76
77 • A new interpretive wayside will be added
78 at the existing parking to view Morning
79 Star Mill ruins and spaces from below.
80 Mill ruins and tailings pile would be
81 preserved.

82
83
84
85
86
87
88
89
90
91
92
93 5.5 LRIP, 41.



Figure 6-5. This 2012 image of the Chase and Mulholland Store ruins illustrates the removal of vegetation from building footprints and managing the space with features revealed and a cover of low growing grasses. (CLI, Jackson/NPS 2012, BUFF Archives)

1	Buildings and Structures/Ruins	47	with Morning Star Mill, built in 1898.
2		48	Most will be stabilized and contributing
3	Contributing buildings, structures, and ruins	49	spaces will be repaired.
4	will be preserved. Standing buildings will be	50	
5	stabilized and repaired to be weatherproof.	51	– Ruins associated with the elevated
6	Building ruins will be stabilized and repaired.	52	tramway that connected the mill
7	Building footprints and associated spaces will	53	with the mine will be preserved and
8	be repaired. Other resources likely remain	54	stabilized.
9	below-grade.	55	
10		56	– Ruins associated with Morning Star
11	• Rush Smelter and Rush Blacksmith Shop	57	Mill will be preserved and stabilized.
12	will be preserved. Both buildings will	58	These include Morning Star Mill Stone
13	be structurally stabilized and exterior	59	Retaining Wall that extends east to
14	finishes repaired/replaced to provide a	60	west along the hillside, and assists in
15	weatherproof enclosure. Exterior facade	61	creating the level space for the mill
16	repair will include roofing, exterior wall	62	building and operations. Vegetation
17	finishes, windows and doors.	63	will be removed from the interior of
18		64	this space and it will be marked to
19	• Building ruins, i.e., foundations, footings,	65	reveal its historic mass and form.
20	chimneys, and other visible evidence	66	
21	on the surface, will be stabilized and	67	– Extant tailings, south and downhill of
22	repaired.	68	the mill, and the large retention basin
23		69	and associated features such as its
24	– Building ruins include Morning Star	70	wall and spillway will be preserved.
25	Hotel ruins, Lyons House ruins, Post	71	This earthen basin is fed by a small
26	Office ruins, Morning Star Livery Barn	72	natural drainage from Rush Mountain
27	ruins, Smith House ruins, Warehouse	73	that will also be protected.
28	ruins, Oil Storage House ruins, Barn	74	
29	ruins, and Hopper House ruins.	75	– Other ruins will be preserved and
30		76	stabilized, these include a series of
31	– The ruins of Morning Star Mine Office,	77	parallel concrete and stone piers,
32	Chase and Mulholland Store, and scale	78	stone retaining wall at the northern
33	pit—will be marked and interpreted.	79	slope, concrete platform for the
34	Vegetation will be removed at building	80	engine and stone and brick boiler
35	ruins. Building footprints will be	81	room.
36	repaired from vegetation removal and	82	
37	footprints marked.	83	
38		84	
39	– Selected spaces associated with	85	
40	building ruins will be repaired,	86	
41	including domestic and livestock	87	
42	spaces associated with Morning Star	88	
43	Livery Barn.	89	
44		90	
45	• Ruins are remnants of structures and	91	
46	features, traces, and spaces associated	92	



Legend

- ① Rush Blacksmith Shop and Warehouse Ruins
- ② Tramway Ruins
- ③ Morning Star Mill Ruins
- ④ Chase and Mullholland Store Ruins, Morning Star Mine Office Ruins, and Scale Pit ruins
- ⑤ Smith House Ruins
- ⑥ Doctor's / Maxey House Ruins and Barn Ruins
- ⑦ Post Office Ruins
- ⑧ Rush Smelter
- ⑨ Morning Star Hotel Ruins
- ⑩ Morning Star Livery Barn Ruins
- ⑪ Morning Star Mine Spoils Pile

Figure 6-6. Spaces associated with Morning Star Hotel, Mill, and Mine Community will be repaired through vegetation thinning or removal to better articulate the mass and scale of each historic space, and to reestablish historic views or relationships. Selected building ruins, i.e. the Morning Star Mine Office, the Chase and Mullholland Store and the scale pit between them, will be marked and interpreted. (Mundus Bishop 2018)

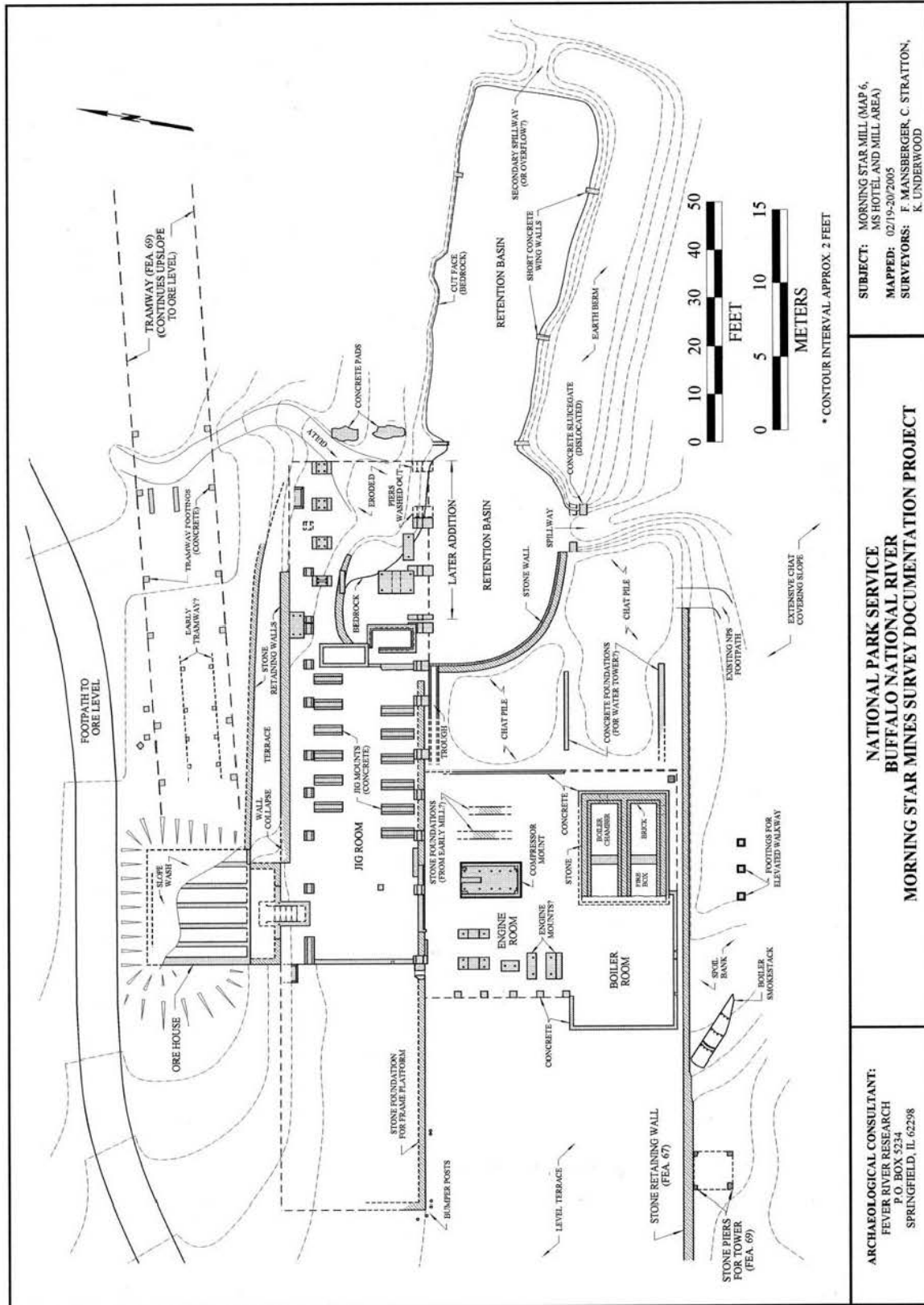


Figure 196. Map 6 of Area "B" of the Morning Star Site, showing the remains of the Morning Star Mill (FRR 2004).

Figure 6-7. Vegetation will be removed from the Morning Star Mill ruins to reveal the ruins of the mill and its associated features. ((FRR 2004) Rogers et al, Historic Resource Documentation, Morning Star Mines Interpretive Area)

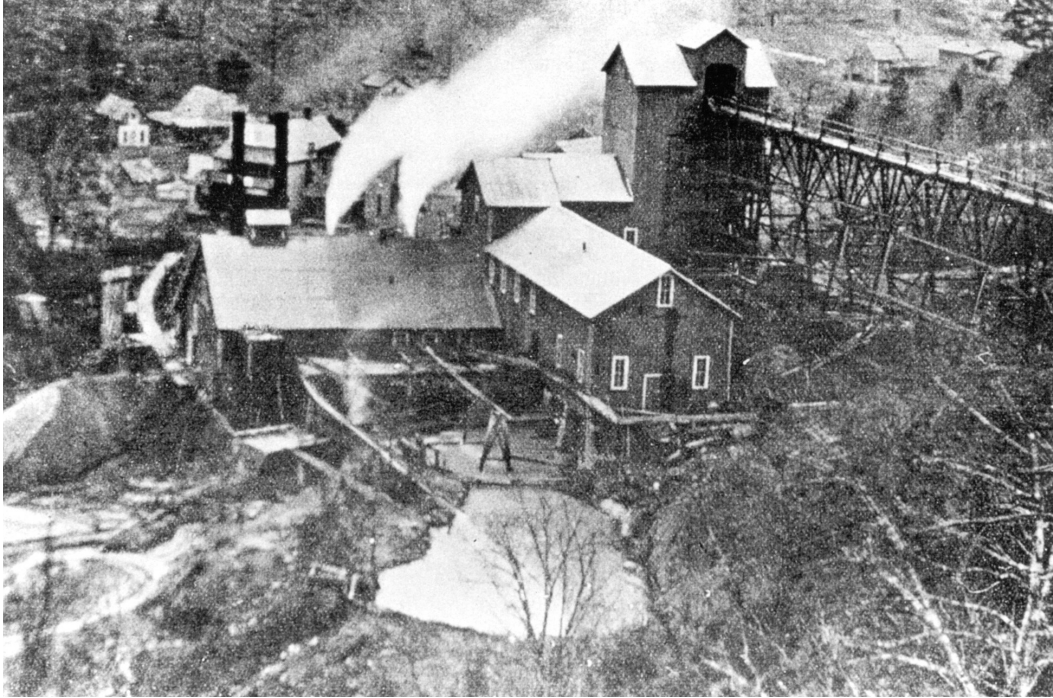


Figure 6-8. Views will be restored from the Morning Star Mine spoils pile towards Morning Star Hotel, Mill, and Mine Community. (BUFF Archives)



Figure 6-9. Vegetation will be removed from the Morning Star Mill to reveal the mill foundations and features. (BUFF Archives)

1 <u>Morning Star Mine Complex (M1)</u>	47	of the spoils pile or to aid in its
2	48	preservation.
3 The study area's first and most famous mine	49	
4 complex—Morning Star Mine Complex (M1)	50	—An interpretive wayside will be added
5 that was active from 1884 to 1935—will be	51	to view this historic zinc mining
6 preserved. All mining resources will remain	52	resource at Mine Level Trail.
7 closed and will be protected including the	53	
8 open cut mine, drift mines, shafts, and spoils	54 •	No physical access will be allowed to adits
9 pile. Selected mining resources will be visible,	55	(at least 6 are known that extend into the
10 as determined by the park, and measures	56	rock face west of the Morning Star Mine
11 taken for visitor interpretation and safety.	57	Open Cut), portals, or openings.
12	58	
13 • All mining resources will be protected	59	—Selected adits, portals, or entrances,
14 including the Morning Star Mine Open	60	as determined by park staff, will be
15 Cut, Morning Star Mine spoils pile, and	61	visible to visitors from the Mine Level
16 Morning Star Mines' most obvious feature,	62	Trail.
17 its adits, openings and portals, and	63	
18 associated spoils.	64	—Vegetation will be thinned and a low
19	65	barrier added, set outside the angle of
20 • No physical access will be allowed to	66	repose from the face of the opening.
21 Morning Star Mine Open Cut (the long	67	Interpretive and regulatory signage
22 narrow open cut that is approximately	68	will warn visitors of hazards.
23 400 feet long, 100 feet wide and 50 feet	69	
24 deep), or to the rock fall that conceals a	70	—Existing openings with metal grates
25 portion of it.	71	will remain. These will be monitored,
26	72	including those with cracked or
27 —Vegetation will be thinned or cleared	73	collapsing portals or features, and
28 from Morning Star Mine Open Cut.	74	protected.
29	75	
30 —An interpretive wayside/viewing	76	—Most mine resources are not readily
31 platform will be added for visitors	77	visible from Mine Level Trail due to
32 to view the full extent of the mining	78	overgrown vegetation. Existing non-
33 operation. This will be accessed by	79	contributing fencing will be removed,
34 pedestrians from Mine Level Trail.	80	as budgets allow, and replaced with a
35	81	simple wood/metal fence in a design
36 • Extant spoils and tailings piles will	82	and material compatible with the
37 be preserved. These include Morning	83	historic mining landscape. Signage
38 Star Mine spoils pile that extends from	84	warning visitors of hazards will be
39 Morning Star Mine (M1) downhill to Rush	85	included.
40 Road.	86	
41	87 •	Vegetation will be thinned in the retention
42 —Existing vegetation covering the spoils	88	basin, drainage and tailings, particularly
43 pile will remain and be monitored.	89	near extant contributing ruins and
44	90	features.
45 —Vegetation may be removed in the	91	
46 future to reveal the immense size	92	



Figure 6-10. The rubble stone wall of the non-extant tramway will be stabilized. Vegetation will be thinned or removed. (Mundus Bishop, 2017)



Figure 6-11. Vegetation will be removed from contributing features, including the Tramway piers. (CLI, Jackson/NPS 2012, BUFF Archives)

Small Scale Features

Contributing small scale features will be preserved, and some stabilized. These include the scale pit, and ruins such as remnants of stone walls and a footbridge pillar. Others will be allowed to decay. Non-contributing small scale features for visitor safety, wayfinding, and interpretation will remain, and some new compatible features added.

- Contributing small scale features will be preserved and monitored. Selected ruins and features will be stabilized with some minor repair.

- The rubble stone wall of the non-extant tramway will be stabilized. Vegetation will be thinned or removed. Repair could include mortar repair, resetting stones, or removing additional vegetation if it threatens the wall's stability.

- Vegetation will be removed from contributing features including the tramway piers, footbridge pillar, and scale pit.

- Non-contributing small scale features, i.e., regulatory or interpretive signs, benches, kiosk, will remain.

- Non-contributing fencing will be removed. It will be replaced, as budgets allow, with a simple wood/metal fence in a design and material compatible with the historic mining landscape.

Vegetation

Morning Star Hotel, Mill, and Mine Community offers the best opportunity to provide a holistic visitor experience and preserve mining resources. Vegetation will

be modified and managed to reveal the broad extent and scale of the Morning Star Mine Complex's (M1) operations, community life, and relationships between them.

- The oak hickory forest that surround these spaces will remain and be managed according to the park's best practices.

- The open field adjacent to Rush Smelter and Morning Star Livery Barn ruins will be repaired. Vegetation will be removed to identify a portion of the field as it appeared historically.

- Vegetation will be removed from Morning Star Mill ruins as noted above.

- Vegetation will be pruned, thinned and possibly removed between Morning Star Trail and Morning Star Mill ruins to repair the historic spatial relationship between them, and to provide a clear view of the mill from the trail.

- Vegetation will be pruned, thinned, and possibly removed at the site of a new overlook for pedestrians at the top of Morning Star Mine spoils pile. This will provide a view of the valley below and repair historic spatial relationships.

- Selected large trees will be protected.

- Smith House lawn will be repaired and managed as an open lawn with low growing grasses.



Figure 6-12. Building ruins, i.e., stone pier foundations, and other visible evidence on the surface will be stabilized and repaired. The foundation ruin of Brantley House was cleared and vegetation maintained in 2012. (CLI, Jackson/NPS 2012, BUFF Archives)



Figure 6-13. Lee Medley and others on the Taylor-Medley General Store porch. Views to the Morning Star Hotel, Mill, and Mine Community will be repaired to reveal spatial arrangement and relationships that existed historically. (BUFF Archives)

1 Treatment Plan - House Row

2
3 House Row represents a portion of larger
4 community that existed within Rush Historic
5 District during the period of significance.
6 Its five extant buildings, building ruins,
7 multiple ruins, setting along Rush Road,
8 and domestic spaces, provide the best and
9 most easily accessed resources for visitors
10 to experience. Buildings will be repaired,
11 structures stabilized, and vegetation removed
12 and managed within domestic spaces to
13 reestablish the full extent of the spatial
14 arrangement and relationships that existed
15 historically.

17 Spatial Organization

18
19 House Row's arrangement of buildings,
20 structures, roads, and vegetation will be
21 repaired to reveal the spatial arrangement
22 and relationships that existed historically.
23 This consisted of buildings set on open lawns
24 oriented to Rush Road with domestic and
25 livestock spaces to the rear.

26
27 • Contributing features will be preserved.
28 Rush Road and extant buildings repaired,
29 and ruins will be stabilized.

30
31 • Vegetation will be managed to reveal
32 contributing spaces and features, and
33 to repair spatial relationships between
34 House Row and Morning Star Hotel, Mill,
35 and Mine Community.

36
37 • Selected spaces associated with buildings
38 and building ruins will be repaired,
39 including domestic and livestock spaces
40 and those along Rush Road.

41
42 • The domestic setting of House Row
43 will be repaired through vegetation
44 management. Historic patterns of open
45 domestic spaces where residents planted
46 gardens and pastures, and kept animals

47 will be repaired. Vegetation will be
48 removed behind buildings and structures
49 to reveal the full extent of these historic
50 spaces.

52 Circulation

53
54 • Rush Road will be preserved and repaired
55 as the spine, and only route, into House
56 Row. It will continue to be a shared
57 vehicular and pedestrian route as it was
58 historically.

59
60 – Rush Road will be preserved along its
61 historic alignment.

62
63 – Where appropriate, the road surface
64 will be narrowed to historic widths,
65 and repaired using a soft surface
66 (gravel) material.

67
68 – The relationship between Rush Road
69 and House Row's narrow driveways,
70 including the grade change, will be
71 preserved.

72
73 • One ABAAS parking space, set parallel
74 to Rush Road, will be provided with
75 associated interpretive information.

76
77 • House Row's narrow driveways will be
78 preserved with minor repairs provided as
79 needed.

81 Buildings and Structures/Ruins

82
83 • The five extant buildings within House
84 Row will be preserved and stabilized.
85 These are Bundy House, Wash House,
86 Kastning House, Storekeeper's House, and
87 Taylor-Medley General Store,

88
89 – All will be structurally stabilized.
90 Roofing and exterior finishes
91 will be repaired/replaced to
92 provide a weatherproof enclosure.



Figure 6-14. The existing intermittent stream will be rerouted away from contributing buildings, building ruins, ruins, and features. (Mundus Bishop, 2017)



Figure 6-15. The spatial organization that contributes to the historic character of House Row will be preserved. Deciduous shade trees, and evidence of gardens and perennial plantings, will be preserved. (Mundus Bishop, 2017)

Exterior facade work will include rehabilitation of windows and doors.

- Building ruins, i.e., stone pier foundations, and other visible evidence on the surface, will be stabilized and repaired. These include Brantley House ruins and Raby House ruins.

- Basic stabilization and repair work will be completed in-situ to elongate the lifespan of these building ruins. They will not be rehabilitated or restored.

- House Row will be managed as mown grasses. Overgrown vegetation will be thinned or removed within spaces associated with both extant and non-extant buildings.

- Vegetation will be removed at building ruins.

- Areas of known non-extant buildings will be managed as low growing grasses. These include Gotley House site and Store site that do not have visible surface ruins or traces.

- Below grade resources likely remain, and will be protected. Further research, investigations, and documentation will be conducted.

- The existing intermittent stream will be rerouted away from contributing buildings, building ruins, ruins, and features. New drainage patterns will be routed away from contributing features.

Small Scale Features

Small scale features will be preserved, and some will be stabilized. Selected features associated with House Row's domestic and livestock spaces will be repaired.

- Contributing small features will be preserved. These are primarily ruins that include a shed, root cellar, chicken house, goose house, privies, trash piles, and a mailbox shelter.

- Some are visible as ruins, and others are depressions in the ground. Below-grade features likely exist and will be protected.

- Portions of domestic and livestock spaces will be repaired. These spaces were historically associated with outbuildings and structures, and are located behind and uphill of the buildings. A portion of this area behind standing buildings and building ruins will be repaired to the toe of the slope.

- A new compatible fence or low barrier will replace the non-contributing fence to discourage visitor access into the repaired domestic spaces and stabilized buildings. New regulatory and interpretive signs will be added for visitor safety and education.

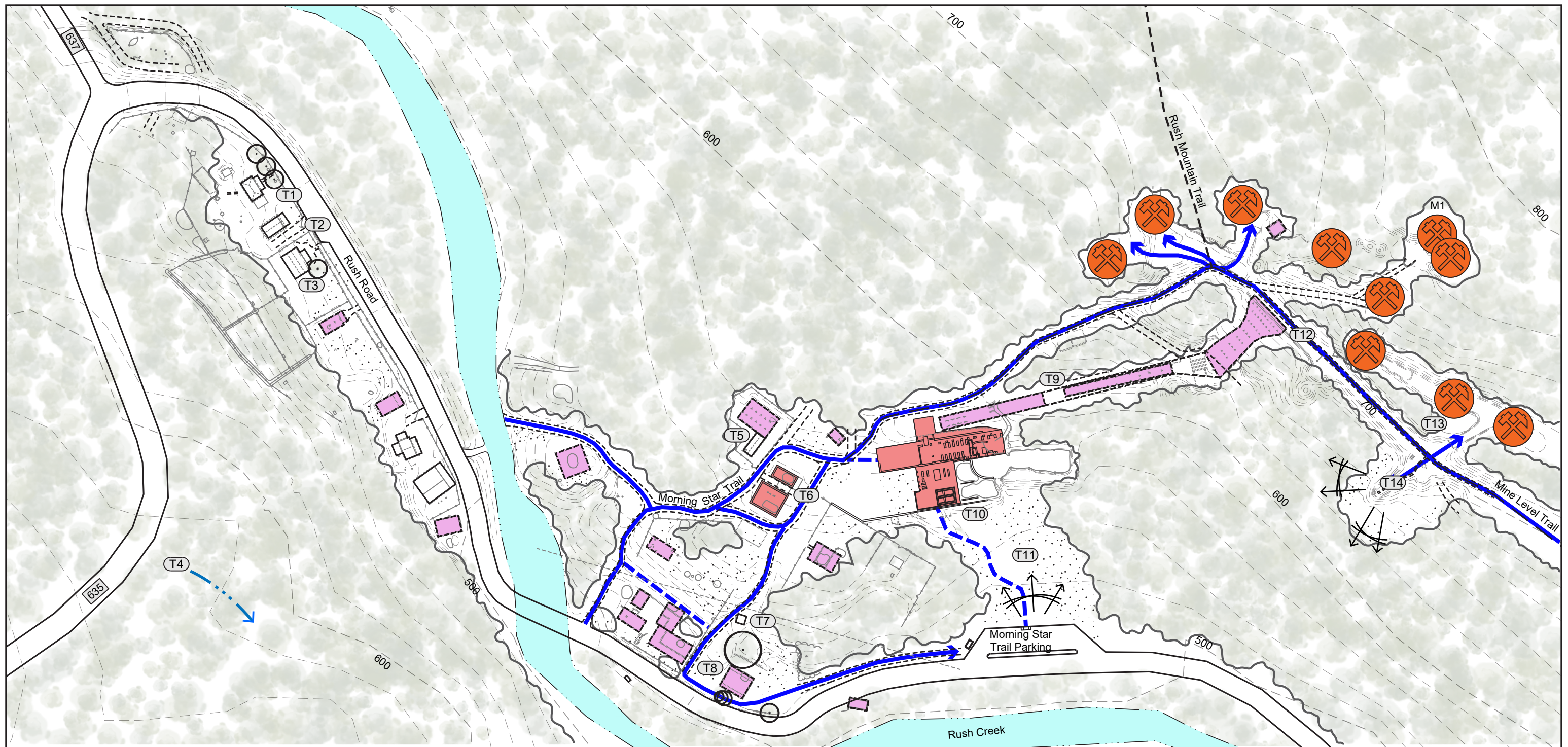
Vegetation

Vegetation that contributes to the historic character of House Row will be preserved. Deciduous shade trees, and evidence of gardens and perennial plantings, will be preserved. Further research will be completed to document the extent of historic plantings including extant iris, daffodils and roses.

- House Row's characteristic mown lawns with deciduous shade trees will be preserved. Extant ornamental plants will be preserved and maintained.

- Vegetation will be removed where it obscures building and structure foundations and ruins. Non-contributing vegetation will be removed.

- 1 • Vegetation management will assist in
2 repairing the domestic setting of House
3 Row. Historic patterns of open domestic
4 spaces where residents planted gardens
5 and pastures and keep animals will be
6 repaired.
7
- 8 • Vegetation will be removed behind
9 buildings and structures, up to the toe of
10 the existing slope, to reveal these historic
11 spaces.
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46



Treatment Recommendations

- (T1) Preserve Lawn and Shade Trees
- (T2) Accessible Parking
- (T3) Stabilize / Rehabilitate Structures at House Row
- (T4) Stabilize / Reroute Intermittent Stream
- (T5) Stabilize Blacksmith Shop
- (T6) Reveal Morning Star Mine Office and Chase and Mulholland Store Ruins and Rehabilitate Scale Pit
- (T7) Stabilize Smelter
- (T8) Thin Vegetation to Re-Establish Pasture / Domestic / Yard Space
- (T9) Mark Tramway
- (T10) Stabilize / Repair Stone Walls
- (T11) Preserve Tailings Pile for View of Mill
- (T12) Preserve Route of Mine Level Trail
- (T13) Thin Vegetation and Provide Viewing Platform to View Morning Star Mine Open Cut
- (T14) Thin Vegetation at Spoils Pile for Overlook

Legend

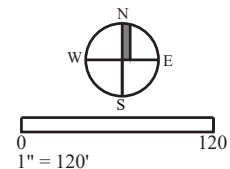
- Road
- Pedestrian Trail
- Pedestrian Trail to Remove
- Creek / River
- Mine / Mine Complex
- Extant Building to Stabilize
- Building Ruins to Preserve/ Stabilize/Repair
- Building Ruins to Mark
- Road Trace to Preserve
- Remnant Feature
- Edge of Forest

Mines

M1 Morning Star Mine Complex (1884 to 1931)

Sources:

USGS 2013 - National Geographic Society, Arkansas GIS (<https://gis.arkansas.gov/>), Google Maps 2017, Historic Resource Documentation Morning Star Mines Interpretive Area, Cultural Landscapes Inventory 2012



SEPTEMBER 2018		TITLE OF PROJECT CULTURAL LANDSCAPE REPORT AND ENVIRONMENTAL ASSESSMENT		Illustration 6-2.
UNITED STATES DEPARTMENT OF THE INTERIOR BUFFALO NATIONAL RIVER ARKANSAS		TITLE OF DRAWING TREATMENT PLAN - MORNING STAR HOTEL, MILL, AND MINE COMMUNITY, AND HOUSE ROW		
173/141248		NAME OF PARK RUSH HISTORIC DISTRICT		6-33
		REGION MIDWEST	COUNTY MARION STATE ARKANSAS	

1 Treatment Plan - Hicks Hotel

2
3 The site of Hicks Hotel and Hicks General
4 Store will be preserved and repaired. The site
5 includes contributing building ruins, small
6 scale features, and ornamental vegetation.

8 Spatial Organization

9
10 The setting of Hicks Hotel and Hicks General
11 Store ruins will be preserved and repaired by
12 removing by vegetation from building ruins,
13 repairing the garden setting of Hicks Hotel,
14 and reestablishing views into the setting.

- 15
- 16 • Vegetation will be removed from the
- 17 building ruins of Hicks Hotel, and Hicks
- 18 General Store.
- 19
- 20 • The spatial relationship of Hicks Hotel
- 21 and Hicks General Store with Rush
- 22 Road will be repaired. Vegetation will
- 23 be thinned and removed to repair views
- 24 between these spaces.
- 25
- 26 • The historic garden setting of Hicks Hotel
- 27 will be preserved, and repaired to reveal
- 28 this hotel set within a garden.
- 29

30 Buildings, and Structures and Building Ruins

31
32 The building ruins of Hicks Hotel and
33 Hicks General Store will be preserved and
34 stabilized. Some features will be repaired to
35 express the historic mass and scale of the
36 buildings. Building footprints and associated
37 spaces will be repaired. In some cases,
38 foundations, footings, chimneys, and other
39 evidence of buildings are visible on the
40 surface. Other resources likely remain below-

- 41 grade.
- 42
- 43 • Hicks Hotel's building foundations,
- 44 visible at the surface, will be preserved,
- 45 stabilized and repaired. Vegetation will be
- 46 removed from the building footprint and

47 this space will be repaired to express the
48 historic mass and scale of the hotel.

- 49
- 50 • Hicks General Store's foundation and
- 51 standing stone walls, the remaining
- 52 building ruins of Hicks General Store, will
- 53 be preserved, stabilized and repaired.
- 54 The mortared stone steps that lead to
- 55 the extant concrete porch at the south
- 56 entrance into the store will be preserved,
- 57 stabilized and repaired. Vegetation will be
- 58 removed from the building footprint and
- 59 this space will be repaired to express the
- 60 historic mass and scale of Hicks General
- 61 Store.
- 62

63 Small Scale Features

64
65 The setting of Hicks Hotel, which includes a
66 garden as its front yard, will be preserved.

67 Contributing small scale features will be
68 preserved, stabilized, and repaired.

- 69
- 70 • Hicks Wall, a mortared stone retaining
- 71 wall, defines the extent of Hicks Hotel
- 72 Garden. The approximately 300' long wall
- 73 and two sets of concrete stairs and stone
- 74 columns will be preserved and repaired
- 75 as needed. Repairs will preserve the wall's
- 76 variety of stone construction techniques
- 77 (cobblestone and coursed ashlar stone).
- 78

- 79 • Hick Hotel's contributing small scale
- 80 features create its garden setting. These
- 81 include stone flower beds and a brick
- 82 walkway to the hotel entrance. The raised
- 83 mortared cobblestones flower beds,
- 84 arranged in diamond and rectangular
- 85 shapes, will be preserved and repaired.
- 86 The brick walkway will be preserved and
- 87 repaired.
- 88



Figure 6-16. Vegetation will be removed to reveal the historic garden setting at Hicks Hotel. (Kastning 1999, <http://uark.maps.arcgis.com/apps/MapJournal/index.tml?appid=c513b4f4e17b475092eac332ee5c9d59>)

Vegetation

Ornamental vegetation associated with Hicks Hotel will be preserved and augmented with new plantings to maintain the historic character. Non-contributing vegetation will be removed to reveal historic building footprints, Hicks Hotel's garden setting, and contributing features.

- Vegetation will be removed from contributing features including building ruins, foundations, and the historic garden setting.
- Vegetation will be removed within Hicks Hotel and Hicks General Store building footprints to assist in revealing the mass and form of these contributing building ruins.
- Ornamental vegetation associated with the garden setting of Hicks Hotel will be preserved. New planting of similar or in-kind species will be planted, as budgets allow. Non-contributing vegetation not associated with the garden setting will be removed.
- Further research will be conducted to document the extent of extant ornamental plantings, which include daffodils, daylilies, and flowering quince within the garden setting and adjacent to Hicks Hotel. Other historic plantings could include roses, lilac, grape hyacinths, forsythia, Russian olive, and mimosa.^{5,6}

^{5,6} *Botanical Survey of 67 Acres and Recommendations.*



Treatment Recommendations

- (T1) Vegetation Management
- (T2) Stabilize/Repair Hicks Wall
- (T3) Repair Historic Garden Setting of Hicks Hotel
- (T4) Stabilize Brick Walkway

Legend





-  Road
-  Creek / River
-  Building Ruins to Preserve/ Stabilize/Repair
-  Forest Edge

Figure 6-17. The site of Hicks Hotel and Hicks General Store will be preserved and repaired. The site includes contributing building ruins, extant small scale features, and ornamental vegetation.

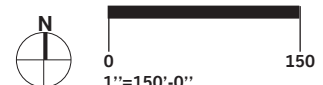




Figure 6-18. Repairs will preserve the Hicks Wall's variety of stone construction techniques (cobblestone and coursed ashlar stone). (Mundus Bishop, 2017)



Figure 6-19. Non-aggressive ornamental vegetation associated with the garden setting of Hicks Hotel will be preserved. (Mundus Bishop, 2017)

1 Implementation

2
3 This section provides guidance for implementing the treatment plan. The following summarizes the
4 treatment recommendations and organizes them into tasks with phases and priorities. Tasks are
5 presented by Study Area first, followed by tasks for Morning Star Community landscape character
6 area and its three components.

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Study Area		
Task 1. Protect mining resources	Task 1.1 Monitor mining resources, i.e., sink holes, caves, openings, etc.	All Phases
	Task 1.2 Provide erosion control measures and soil stabilization to protect contributing features	
Task 2. Protect Bat Habitat	Task 2.1 Monitor openings with metal grates to ensure bat habitat is protected	All Phases
Task 3. Allow the Cherokee Medicine Keepers to access selected vegetation communities	Task 3.1 Allow documentation, and possibly collection, of plants of medicinal, economic or spiritual value	Phase 1 / High
Task 4. Protect Buffalo River, and Rush and Clabber creeks	Task 4.1 Provide measures to mitigate damage from erosion, pollution, or man-made intrusions, and allow removal of invasive species	All Phases
Task 5. Protect prehistoric and historic archeological sites	Task 5.1 Protect known sites and document/identify	Phase 1
	Task 5.2 Document historic archeological sites (mining related) and below grade resources	All Phases
Task 6. Repair study area's historic patterns and relationships	Task 6.1 Repair selected views through vegetation thinning, pruning, and some removal	Phase 1
	Task 6.2 Provide virtual access through digital, 3-D media	Phase 1
Task 7. Repair Rush Road	Task 7.1 Narrow to historic widths in select locations and repair surfacing	Phase 1
Task 8. Repair Clabber Creek Road	Task 8.1 Repair surfacing, and provide soft surfaced parking and vehicular turn-around with gate	Phase 1
	Task 8.2 Repair surfacing past gate for pedestrian use only	Phase 1

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Study Area		
Task 9. Add new trails on Rush Mountain and to Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12)	Task 9.1 Add new trail, Rush Mountain Trail, for pedestrian use only to connect to Monte Cristo Mine (M10) to Morning Star Mine Complex (M1)	Phase 1
	Task 9.2 Add new pedestrian only trail to Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12)	Phase 2
Task 10. Improve accessibility to visitor facilities	Task 10.1 Provide ABAAS pedestrian route and parking to existing comfort station and shelter at Rush Landing	Phase 1
	Task 10.1 Provide ABAAS pedestrian trail to Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12)	Phase 2
Task 11. Improve parking and access at New White Eagle Mill for day use	Task 11.1 Improve park and vehicular access and add new pedestrian trail to connect visitor parking to Mine Level Trail	Phase 2
Task 12. Protect Mines and Mine Complexes	Task 12.1 Monitor and ensure openings are secured or not accessible	Phase 1 to Phase 3
	Task 12.2 Select adits, portals, or openings to be visible to visitors. Add low barrier and signage, and clear vegetation	Phase 2
	Task 12.3 Preserve ruins and spaces	Phase 1 to Phase 3
	Task 12.4 Stabilize selected ruins, i.e. Edith Mill's pyramidal piers	Phase 1 to Phase 3
	Task 12.5 Repair spaces associated with selected mills (primarily in Morning Star Community landscape character area)	Phase 1 and Phase 2
Task 13. Preserve contributing small scale features	Task 13.1 Preserve and monitor	Phase 1 to Phase 3
	Task 13.2 Stabilize selected features, i.e., stone walls, ore cart	Phase 2
Task 14. Manage vegetation to repair spaces and spatial relationships	Task 14.1 Prune or thin, with some removal, vegetation along Road, and along contributing roads repurposed as pedestrian only trails	Phase 1
	Task 14.2 Prune, thin or remove vegetation from contributing features at New White Eagle Mine, Yellow Rose Mine Complex (M7) and Edith Mine Complex (M12)	Phase 2

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Morning Star Mine Community Landscape Character Area		
Task 1. Repair Rush Road	Task 1.1 Narrow to historic widths in select locations and repair surfacing	Phase 1
Task 2. Modify pedestrian trails	Task 2.1 Realign Morning Star Trail to avoid contributing features with access between parking and mill	Phase 1
	Task 2.2 Add ABAAS pedestrian route between Morning Star Trail parking, west to Morning Star Livery Barn ruins, etc.	Phase 1
	Task 2.3 Modify contributing roads, i.e., abandoned roads to Morning Star Mill, for pedestrian use only	Phase 2
	Task 2.4 Add wayside or overlook for pedestrians above Morning Star Mine spoils pile	Phase 2
Task 3. Manage vegetation to protect contributing features and spaces	Task 3.1 Protect contributing vegetation: trees at the Courthouse site, Morning Star Livery Barn ruins, House Row, Hicks Hotel, etc.	Phase 1
	Task 3.2 Remove trees and understory vegetation from buildings, building ruins, ruins (structures and features), and where these obscure views	Phase 1
	Task 3.3 Manage building ruins and ruin spaces with a cover of low growing grasses and herbaceous plants	Phase 1 to Phase 3
Morning Star Hotel, Mill, and Mine Community		
Task 1. Repair the setting and spatial relationships of Morning Star Mill	Task 1.1 Remove vegetation from building ruins, ruins, and spaces	Phase 1
	Task 1.2 Stabilize contributing features	Phase 1
	Task 1.3 Repair views to the mill, between contributing features, and between the mill and tailings	Phase 1
	Task 1.4 Repair the space and vegetation of the pasture around Morning Star Livery Barn ruins	Phase 1
Task 2. Provide enhanced interpretation	Task 2.1 Provide virtual access through digital, 3-D media that depicts the historic setting of Morning Star Mill	Phase 2

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Morning Star Hotel, Mill, and Mine Community		
Task 3. Protect contributing buildings, building ruins, ruins, and features of Morning Star Mill	Task 3.1 Repair Rush Smelter and Rush Blacksmith Shop (structurally stabilize and repair exteriors)	Phase 1
	Task 3.2 Stabilize building ruins for Morning Star Hotel, Morning Star Mine Office, Morning Star Livery Barn, Post Office, Courthouse, Chase and Mulholland Store and Warehouse and repair building spaces	Phase 1 and Phase 2
	Task 3.3 Remove trees and understory vegetation from building ruins	Phase 1
	Task 3.4 Stabilize ruins (tramway, stone retaining wall, etc.)	Phase 1
	Task 3.5 Preserve tailings, retention basin, and associated features	Phase 1
	Task 3.6 Mark building spaces	Phase 2
Task 4. Protect contributing buildings, building ruins, ruins, and features of Morning Star Mine	Task 4.1 Protect and monitor mining resources	All Phases
	Task 4.2 Preserve and stabilize Morning Stare Mine spoils piles	Phase 1
	Task 4.3 Determine adits, portals, or openings to remain closed or to have visual access	Phase 1
	Task 4.4 Thin vegetation, add low barrier and signage to adits, portals, or openings with visual access	Phase 1
	Task 4.5 Thin vegetation from retention basin, drainage, spoils pile, and contributing features	Phase 2
Task 5. Preserve contributing small scale features	Task 5.1 Stabilize rubble wall (tramway) and thin vegetation	Phase 1
	Task 5.2 Continue documentation of extant contributing features	Phase 1

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Morning Star Hotel, Mill, and Mine Community		
Task 6. Manage vegetation to protect contributing features and spaces	Task 6.1 Protect contributing trees at the former Courthouse site, and vegetation at Morning Star Livery Barn ruins	All Phases
	Task 6.2 Remove trees and understory vegetation from Morning Star Mill buildings, building ruins, ruins (structures and features), and where these obscure views	Phase 1
	Task 6.3 Manage Morning Star Mill building ruin and ruin spaces with a cover of low growing grasses and herbaceous plants	Phase 1
	Task 6.4 Thin vegetation from retention basin, drainage, spoils pile, and contributing features	Phase 2
	Task 6.5 Repair Smith House lawn as mown grasses	Phase 1
House Row		
Task 1. Repair the setting and spatial relationships of House Row	Task 1.1 Remove vegetation from buildings, building ruins, ruins, and spaces	Phase 1
	Task 1.2 Stabilize contributing features	Phase 1
	Task 1.3 Repair views to Morning Star Hotel, Mill, and Mine Community, and between contributing features	Phase 2
	Task 1.4 Repair the spaces of House Row including the front yards, and domestic and livestock spaces	Phase 1
Task 2. Provide enhanced interpretation	Task 2.1 Provide virtual access through digital, 3-D media that depicts the historic setting of House Row and the historic view between House Row and Morning Star Hotel, Mill, and Mine Community	Phase 2
Task 3. Repair Rush Road and provide universal accessibility	Task 3.1 Narrow to historic widths in select locations and repair surfacing	Phase 1
	Task 3.2 Provide one ABAAS compliant parallel parking space	Phase 1

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
House Row		
Task 4. Protect contributing buildings, building ruins, ruins, and features of House Row	Task 4.1 Repair Wash House, Kastning House, Raby House, Storekeepers House, and Taylor-Medley General Store (structurally stabilize and repair exteriors)	Phase 1
	Task 4.2 Stabilize building ruins for Brantley House and Raby House and repair building spaces for these	Phase 1
	Task 4.3 Remove trees and understory vegetation from building ruins	Phase 1
	Task 4.4 Stabilize ruins	Phase 1
	Task 4.5 Mark building spaces of known missing buildings – Gotley House and Store site	Phase 1
Task 5. Preserve contributing small scale features	Task 5.1 Stabilize ruins (shed, root cellar, chicken house, goose house, privies, trash piles, and mailbox shelter)	Phase 1
	Task 5.2 Continue documentation of extant contributing features	All Phases
Task 6. Add low barrier to protect House Row	Task 6.1 Add new compatible low fence or barrier along the front yards of House Row with interpretive and regulatory signage	Phase 1
Task 7. Manage vegetation to protect contributing features and spaces	Task 7.1 Protect contributing deciduous shade trees and mown lawn at House Row	Phase 1
	Task 7.2 Remove trees and understory vegetation from House Row buildings, building ruins, ruins (structures and features), and where these obscure views	Phase 1
	Task 7.3 Manage building ruin and ruin spaces with a cover of low growing grasses and herbaceous plants	Phase 1
	Task 7.4 Thin vegetation from domestic and livestock spaces and contributing features	Phase 1

Table 6-1. Implementation by Task and Phase		
CLR Treatment Recommendation	CLR Task Component	Phase / Priority (Low, Medium or High)
Hicks Hotel		
Task 1. Repair the setting and spatial relationships of Hicks Hotel	Task 1.1 Remove vegetation from building footprints of Hicks Hotel and Hicks General Store	Phase 1
	Task 1.2 Repair the garden setting of Hicks Hotel including removal of non-contributing features	Phase 2
	Task 1.3 Stabilize contributing features and vegetation	Phase 1 and Phase 2
	Task 1.4 Repair views to Hicks Hotel and its garden setting	Phase 1
Task 2. Protect contributing buildings, building ruins, ruins, and features of House Row	Task 2.1 Repair building ruins of Hicks Hotel and Hicks General Store (structurally stabilize and repair extant walls, etc.)	Phase 1
	Task 2.2 Remove trees and understory vegetation from building footprints	Phase 1
	Task 2.3 Stabilize ruins associated with the buildings including stone steps	Phase 1
Task 3. Preserve contributing small scale features	Task 3.1 Stabilize extant contributing features including Hicks Wall	Phase 1
	Task 3.2 Stabilize extant contributing features of Hicks Hotel's garden setting – stone flower beds and brick way	Phase 1
	Task 3.3 Further documentation of extant contributing features and relationships of Hicks Hotel's setting	All Phases
Task 4. Manage vegetation to protect contributing features and spaces	Task 4.1 Protect contributing ornamental vegetation	All Phases
	Task 4.2 Remove non-contributing vegetation from garden setting	Phase 1 and Phase 2
	Task 4.3 Remove trees and understory vegetation from Hicks Hotel and Hicks General store building ruins	Phase 1
	Task 4.4 Remove vegetation from contributing ruins (structures and features), small scale features, and where these obscure views	Phase 1
	Task 4.5 Repair the garden setting with new plantings of similar or in-kind species	Phase 1 and Phase 1