

TOWN OF BRECKENRIDGE
OPEN SPACE ADVISORY COMMISSION
Monday, September 22, 2014
Lower Level Conference Room
Breckenridge Town Hall
150 Ski Hill Road

3:30pm Site Visit to B-Line and Aspen Alley Trails (meet behind Town Hall on mountain bikes)

5:30	Call to Order, Roll Call	
5:35	Discussion/approval of Minutes – August 18, 2014	4
5:45	Discussion/approval of Agenda	
5:50	Public Comment (Non-Agenda Items)	
6:00	Staff Summary	
	• Field Season Update	
	• Friends of Breckenridge Trails Update	
	• Rocky Mountain Recreation and Wilderness Preservation Act Update	8
	• Weber Gulch Hut Update	
	• Forest Health Projects Update	
6:15	Open Space	
	• Reiling Dredge Preservation Master Plan	9
	• 2015 Budget/Pro Forma	102
7:30	Executive Session	
8:00	Adjourn	

For further information, please contact the Open Space and Trails Program at 970-547-3155 (Scott) or 970-453-3371 (Chris).

Memorandum

To: Breckenridge Open Space Advisory Commission
 From: Open Space Staff
 Re: September 22, 2014 Meeting

Staff Summary
Field Season Update

Work has continued on multiple summer projects on the 2014 work plan. The following has occurred since the previous 8/18 BOSAC meeting:

- Completed and opened B-Line Trail to Hermit Placer Trail.
- Constructed new portions of the ZL Trail, including several bridge spans and chicanes/entry posts.
- Completed Sallie Barber Road drainage repairs.
- Improved Side Door drainage on historic alignment.
- Installed signage throughout trail system.
- Planned and designed new trail projects for the 2014 and 2015 construction seasons (e.g. Aspen Alley, Weber Gulch, Wirepatch, and Mineral Hill).

Friends of Breckenridge Trails Update

On September 13th, over 20 volunteers assisted with the construction of ZL Trail as part of Make a Difference Day. Significant progress was made on ZL and the trail crew is finalizing the route. Vail ECHO Day, with an estimated 300 volunteers, is scheduled for September 20th and will construct the Wirepatch Trail in upper French Gulch.

Rocky Mountain Recreation and Wilderness Preservation Act Update

Attached is the Town Council letter of support regarding Congressman Polis' recent wilderness bill. Council appreciated BOSAC's input on this issue.

Weber Gulch Hut Update

At its August 26th discussion, Town Council agreed with BOSAC's recommendation to not object to the U.S. Forest Service (USFS) draft record of decision regarding the Weber Gulch hut. The USFS will respond to all objections filed before September 12th and then issue a final decision regarding the hut in the coming months.

Forest Health Projects Update

The Iowa Hill forest health project should be completed by 9/22. The Golden Horseshoe project started on September 15th and will likely continue until snowfall prevents further work. Staff will update BOSAC on any progress regarding these projects.

Open Space
Reiling Dredge Preservation Master Plan

Attached is a draft version of the Reiling Dredge Preservation Master plan and an accompanying memo from the September 9th Town Council meeting. Town Council reviewed the plan in advance of the September 23rd Breckenridge Heritage Alliance joint meeting which determines 2015 capital expenditures. As you can see by the memo, the

Town and County have reached a decision point regarding stabilization costs for the dredge itself.

During the discussion, Council directed staff to pursue stabilization of the dredge boat structure by clearing the deck of soil and vegetation and shoring up rotten decking portions. Staff will also evaluate the feasibility and cost of raising the water level of the pond, as outlined in the Preservation Master Plan. The total stabilization costs for phase I have been estimated at \$110,000, with portions of those costs coming from the open space fund and the Breckenridge Heritage Alliance 2015 capital fund. Town Council also asked Summit County to split the stabilization costs 50/50. Phase I of the stabilization will address the most pressing issue of the dredge (structural decay) and allow for future phases to be considered. This project and its costs will be discussed by OSAC at their October meeting.

Town Council and the Board of County Commissioners also agreed to postpone any decision regarding National Historic Landmarking and river restoration.

Staff requests BOSAC familiarize themselves with the attached report and memo, and then answer the following questions:

- 1. Does BOSAC have any questions regarding the content of the draft Preservation Master Plan and its recommendations?*
- 2. Does BOSAC have any questions for staff regarding the policy direction from Town Council?*

2015 Budget/Pro Forma

Mark Truckey will review the revised open space pro forma as part of the ongoing 2015 budgeting process.

Roll Call

Jeff Cospolich called the August 18, 2014 BOSAC meeting to order at 5:38 pm. Other BOSAC members present included Jeffrey Bergeron, Elizabeth Miller, Jeff Carlson and Craig Campbell. Staff members present were Peter Grosshuesch, Scott Reid, Mark Truckey and Chris Kulick. Pat McShane, a Breckenridge resident, was also in attendance.

Approval of Minutes

The minutes were approved as presented.

Public Comments

There were no public comments.

Staff Summary

Field Season Update

Work has continued on multiple summer projects on the 2014 work plan. The following projects have taken place since the previous 7/21 BOSAC meeting:

- Completed Upper Turk's Trail with help from the Volunteers for Outdoor Colorado and numerous volunteers.
- Assisted contractor with the B-Line Trail extension.
- Constructed portions of the ZL Trail extension, with the assistance of volunteers and the Rocky Mountain Youth Corps.
- Initiated repairs on Sallie Barber Road with Summit County.
- Constructed a portion of the Sunrise Point trail.
- Planned and designed new trail projects for the 2014 and 2015 construction seasons (e.g. Aspen Alley, Weber Gulch, Wirepatch, and Mineral Hill).

Friends of Breckenridge Trails Update

Since BOSAC's prior meeting, two Friends of Breckenridge Trails events have occurred. The first event was our largest volunteer effort of the season, Upper Turk's Trail. As has occurred annually for the last nine years, the Town partnered with Volunteers for Outdoor Colorado and Summit County and was able to complete the 4,000-foot project in two days with the help of 172 volunteers. The second event was our third volunteer day for the ZL Trail project which occurred just after press time for the packet.

We have scheduled one remaining Friends of Breckenridge Trails volunteer event this season, Make a Difference Day on 9/13. Staff strongly encouraged BOSAC members to attend the season's final volunteer date and help complete an important community trail connection.

Mr. Bergeron – When we decommission trails we should keep in mind how it will affect skiing. The recent decommission of Smelly's Hill will necessitate a deep snowpack to ski it.

Rocky Mountain Recreation and Wilderness Preservation Act

The wilderness bill previously reviewed by BOSAC was presented to Town Council on 8/12 with Council generally supporting the bill.

Forest Health Projects Update

There are two primary forest health projects scheduled for 2014, both of which are currently underway. When completed the Iowa Hill project will remove all MPB-killed trees, deadfall materials, and select living lodgepole pine trees from 8.9 acres of the Iowa Hill site. The larger, joint Golden Horseshoe project with Summit County Government on Gibson Hill and above Summit Estates has commenced. The project's road work is mostly completed; cutting activities should begin soon and are expected to be completed by late fall. Staff will update BOSAC on these projects until they are completed.

Open Space

Peaks Trail Connection

As discussed during the July meeting, staff seeks BOSAC's input on the Peaks Trail connection proposed by the Breckenridge Ski Resort under a USFS NEPA process. Following the scheduled BOSAC site visit to the flagged trail alignment, staff sought any direction from BOSAC regarding the trail design.

Mr. Carlson – In general, I like the alignment but feel it will necessitate a very skilled builder to make it a good connection.

Mr. Bergeron – By us endorsing this proposed trail, we are not endorsing the other proposed improvements at the ski area, correct? (Mr. Reid – This is a request by the ski area and USFS to see how this proposed trail alignment looks. BOSAC can endorse this proposed trail without supporting other elements of the ski area's proposal.)

Mr. Cospolich – Can you express the intent of this trail diversion? (Mr. Reid – An alternative trail alignment to bypass Cucumber Gulch was required as a condition for the approval of summer operating hours for the Gondola.)

Mr. Campbell – Is there a need or is it a desire to have an alternative route of the Gulch? (Mr. Reid – Recent studies show the current trail use on Toad Alley has wildlife impacts, at least in a localized area. We have seasonal closures currently. This trail would serve as a bypass during seasonal closures and long-term ensure good trail access between the Peaks Trail and town.)

Mr. Carlson – It would be ideal if dogs were allowed on the proposed alignment through the ski area since no dogs are allowed in the Cucumber Gulch. I spoke with Jeff Zimmerman and Shelly Grail about this point and they seemed receptive.

Ms. Miller – Were other alignments considered? (Mr. Reid – All potential alignments are dictated by control points such as achieving an elevation above the top of the alpine slide. Overall, the ski resort looked at several options that met the required control points and believed the proposed alignment was the best one, given the varied constraints.)

Mr. Cospolich – Signage will be critical to successfully diverting users.

BOSAC endorsed the alignment for the proposed trail.

Weber Gulch Hut Environmental Assessment Draft Decision Notice

After a lengthy planning process, the Weber Gulch Hut Environmental Assessment Draft Decision Notice was delivered to the public on July 25th, thereby entering a 45-day appeal period. Appeals to the decision notice must be filed by the end of the appeal period, and can be filed only by groups or individuals that previously commented during the process.

Staff reviewed the Draft Decision Notice and found that the document is generally in agreement with the Town's prior comments and overall support for the project.

Mr. Bergeron – The EA dismissed considering a smaller hut based on financial reasons without taking into account different pricing structures. Also, their information drastically under counted the amount of use Baldy receives (i.e. “1-2 parties of three per day in Baldy Bowl” on pages 3-9 and 3-10 of the EA). (Mr. Reid – Number inaccuracies in background recreational use on Baldy have been discussed previously. We can certainly point it out to the USFS staff again.)

Mr. Grosshuesch – What we really need to know is if BOSAC thinks the overall decision is wrong, based on faulty information or some other reason.

Mr. Bergeron – I don't disagree with the decision, but still feel like the EA numbers for background use are laughably inaccurate. Also, my concern is that during early season and low snow periods people in boots or snowshoes are going to trash the Nightmare on Baldy ski tracks. Hut users will likely be the ones to take off their skis and walk down during low snow periods, which affects the track skiing.

Ms. Miller - What were the main issues the Town highlighted in our previous letter? (Mr. Reid - Trailhead management, better snowmobile prevention efforts on Baldy Road, and hut capacity.)

BOSAC generally favored the decision notice and did not support filing an appeal.

Trail Naming

Staff presented information on the trail naming process and the rationale behind the names of the trails in French Gulch. A high priority is to simplify names as much as possible when naming trails and not introduce many unique names for short sections of trail, which makes wayfinding more difficult. In addition to these basic principles, trails jointly managed between the Town and County require naming approval from both agencies.

Ms. Miller - This proposal to merge the new section with the existing Turk's makes the most sense; it's cleaner.

Mr. Bergeron – I wish we could keep some of the historic names instead of renaming everything. (Mr. Carlson – I agree.)

Mr. Campbell - Keeping it Turk's simplifies the wayfinding.

Mr. Cospolich - I like it as Turk's, it's more straightforward.

2015 Budget/Pro Forma

Mark Truckey presented the open space pro forma in preparation for the 2015 budgeting process. Overall not much has changed except for some special projects.

Mr. Bergeron – Is there any way we can push the \$480,000 for the Blue River restoration off into the future if we need more for acquisitions in the future? (Mr. Truckey – We decided not to do that because we are already in pretty good shape for acquisitions.)

Mr. Truckey – There is a good chance Open Space will be asked to contribute to a portion of the cost to stabilize the Reiling Dredge. (Mr. Cospolich - Will this be new precedent?) Open Space has had to contribute to some historic preservation projects in the past, just not in recent years.

Mr. Cospolich – Is the Wellington Oro treatment plant a perpetual line item. (Mr. Truckey – For the time being, yes.)

Mr. Campbell – The TDR revenues are robust in the next couple years, could you explain where that revenue is coming from? (Mr. Truckey – We have several projects approved that require TDRs, that is where the projected revenue is coming from.)

BOSAC generally agreed that any remaining open space fund balance should be allocated towards additional acquisitions or towards paying off debt obligations earlier (i.e. B&B purchase).

Next Meeting

The next regularly scheduled meeting is on Monday, September 22, 2014, at the Breckenridge Town Hall, 150 Ski Hill Road. The next meeting is scheduled one week later than normal due to staff attending the annual Colorado Open Space Alliance conference.

Mr. Campbell motioned to adjourn the meeting, which was seconded by Mr. Bergeron.

The meeting was adjourned at 7:33 p.m.

Jeff Cospolich, Chair



August 21, 2014

Rep. Jared Polis
P.O. Box 1453
Frisco, CO 80443

Conservation Colorado
1536 Wynkoop Street, #5C
Denver, CO 80202

Dear Rep. Polis:

The Town of Breckenridge would like to state our endorsement of the Rocky Mountain Recreation and Wilderness Preservation Act recently proposed by your office.

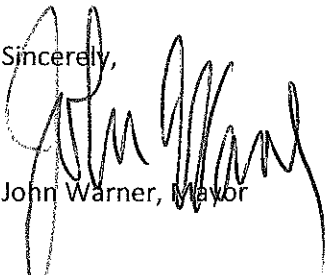
As a land protection tool, federal wilderness is important because it protects important ecosystem values, scenic landscapes, and recreational opportunities in perpetuity. Our community believes that additional wilderness designations in Summit County will augment existing land protection efforts while also supporting the local outdoor recreation economy.

Of particular interest to the Town of Breckenridge are the proposed Hoosier Ridge and Tenmile Wilderness Areas and the associated Tenmile Recreation Management Areas. We believe the landscape, ecosystem, and recreational values of these areas warrant additional land protection in the form of wilderness.

Your staff has worked judiciously with area stakeholders to amend the previously proposed wilderness boundaries to address recreational access, watershed protection, and forest health concerns expressed by Breckenridge citizens. The amended maps and language associated with the Rocky Mountain Recreation and Wilderness Preservation Act are consistent with the White River National Forest Travel Management Plan and allow for critically important access to prevent, prepare for, and respond to wildfire concerns. We appreciate your diligence in addressing these important community issues.

Thank you to you and your staff for your efforts in preserving Colorado's treasured landscapes.

Sincerely,



John Warner, Mayor

cc: U.S. Sen. Mark Udall
U.S. Sen. Michael Bennett



MEMORANDUM

TO: Town Council
FROM: Open Space and Trails Staff
DATE: September 9, 2014
SUBJECT: Reiling Dredge Preservation Master Plan

Summary

The Reiling Dredge Preservation Master Plan describes several potential stabilization and interpretation options for the Reiling Dredge on joint Town/County open space in French Gulch. Staff is providing a status update to Town Council on the content of the report, and requests Town Council consider potential next steps for preserving and interpreting this important historical resource.

Background

The Reiling Dredge is an historical resource located on jointly-owned Summit County/ Town of Breckenridge open space in French Gulch. In the early 1900's, the Reiling Dredge successfully obtained gold from the valley bedrock by overturning the riverbed, leaving it its wake a characteristic "spooned," cobble-strewn valley with no discernible river channel or riparian zone. The Reiling Dredge is historically significant because it was cutting edge technology in its day and represents the extreme measures which area miners took in pursuit of gold. The Reiling Dredge is also particularly rare because the boat was abandoned in its pond with the associated boarding house, cabins, privies, and scow located nearby.

The Reiling Dredge ceased operation in the early 1920's. Much of the steel that comprised the boat's workings was salvaged during World War II. After several decades of neglect, the Reiling Dredge was identified as an important historical resource in the early 2000's. Initial research was performed to assess the possibility of stabilizing the rapidly deteriorating structure. Several initial evaluations by historians, archeologists, and submerged historic resource experts led to the following conclusions:

1. The Reiling Dredge is in a state of rapid decay, potentially necessitating expensive stabilization efforts.
2. The Reiling Dredge is an extremely rare site and historically significant enough to warrant consideration for state or federal listing.
3. More specific information about the Reiling Dredge and its current structural integrity would be needed in order to effectively stabilize and interpret the site.

As a result of these conclusions, in 2013, the Breckenridge Heritage Alliance (BHA) hired SlaterPaull Architects to develop a preservation master plan. The report was commissioned by the BHA in cooperation with the Town of Breckenridge and Summit County Government, and funded largely by a Colorado State Historical Fund planning grant. The primary objectives of the report were to:

1. Conduct a thorough investigation of the structural stability and integrity of the Reiling Dredge.
2. Develop recommendations for both short-term stabilization and long-term preservation of the structure, and cost estimates.
3. Develop a plan for the interpretation and use of the site.

4. Describe the potential parameters for the Reiling Dredge to be included on the National Register of Historic Places.

Following several public forums and extensive background research, SlaterPaull delivered a draft of its Reiling Dredge Preservation Master Plan to the BHA, Town, and County staffs in August. This Council memo and presentation are intended to summarize the report's findings and identify first steps towards the stabilization and interpretation of the historic Reiling Dredge.

In summary, the report concluded the following:

- The Reiling Dredge is a rare and important historical site worthy of both preservation and interpretation.
- Without immediate stabilization efforts, the Reiling Dredge structure will inevitably experience greater decay and loss of historical fabric.
- Interpretative opportunities abound in the area surrounding the Reiling Dredge.

The Reiling Dredge may be eligible for National Historic Landmark status, the highest level of federal listing, but future projects in French Gulch (i.e. river restoration) could adversely affect a historic designation. The Preservation Master Plan provides ample information on the Reiling Dredge, including its historical significance for the Breckenridge area, its current structural integrity, and a list of preservation strategies to stabilize the decaying wooden structure and extend its life for interpretive reasons. The plan also delves deeply into potential future interpretive approaches for the area, including new trails, platforms, and signage. Finally, the report provides recommendations regarding a potential National Register nomination and, along with it, the scale of preservation of many of the spooned rock piles in the valley to retain "historical context" for the Reiling Dredge.

Summit County commissioners have expressed concern that future river restoration efforts previously discussed by BOSAC and Town Council conflict with the State's proposed National Register boundary, which could mean any National designation could be jeopardized. Although a National Register nomination would not prevent future river restoration efforts per se, mining a river bottom designated as a National Historic landscape would likely affect public perception of the river restoration and complicate the restoration project. Notably, section 106 review (state-level review of historical site impacts) would be required for any future projects with a federal nexus (i.e. Army Corps 404 permit or federal project funding) because the site has already been identified as National Register eligible. The river restoration concept was vetted through a Harvard Design School project several years ago but has not progressed beyond conceptual at this time.

According to the Preservation Master Plan, the highest priority with regard to the Reiling Dredge is to stabilize the decaying wooden boat to extend the life of the structure for future interpretative goals. The plan outlines several stabilization options and their associated costs:

1. No intervention- Dredge decays significantly over the next 20 years. **No costs.**
2. Improve stabilization and extend the life of dredge by clearing the deck of sand and vegetation, making timber frame repairs, reinforcing damaged deck portions, and possibly raising the pond water level. **\$90,000 estimated, plus any pond level costs.** (This option- **\$110,000 in total**- is included the BHA's proposed 2015 CIP funding request for Council consideration).
3. Preserve and stabilize dredge for longevity by repairing port cabin walls and roof, reinstalling diagonal bracing, and repairing starboard ladder well framing. **\$127,950 estimated, plus above costs.** (This option is in the BHA's proposed 2016 CIP budget).

4. Additional stabilization and gantry reassembly. **\$191,000 estimated, plus above costs.** (This option is in the BHA's proposed 2017 CIP budget).

Pursuit of any of these stabilization options would require additional budget discussions between Town Council, the Breckenridge Heritage Alliance, and Summit County Government. The CIP discussions are scheduled to occur at the September 23rd Town Council joint meeting with the BHA. BHA and Town staff will continue to explore funding options with History Colorado and Summit County Government for the stabilization tasks identified in the report.

Following multiple conversations with the project partners, staff recommends delaying any National Historic Landmark application at this time, and proceeding with the initial stabilization (option #2 above) without pursuing History Colorado grant funding for the stabilization. This approach accomplishes the following:

1. It treats the most pressing issue (rapid deterioration of the dredge structure) in the shortest possible timeframe. Pursuing State grant funding would delay any on-the-ground stabilization work until 2016 field season at the earliest.
2. It allows the Town and County to determine the appropriate level of stabilization, rather than pursuing State-directed restoration work based on the dredge's period of significance.
3. It forestalls complex and challenging partnership decisions regarding future valley-bottom restoration efforts.
4. It is relatively cost-effective. The cost of option 2 could potentially be split 50/50 with Summit County and yield measureable results to preserve any future stabilization and interpretive options. Potential State restoration grant funding could result in a 75/25 project split of the estimated \$110,000 first phase, but carry additional costs, delays, and other requirements.

Staff requests Town Council review the attached Reiling Dredge Preservation Master Plan and answer the following questions:

1. *Does Town Council have any questions regarding the content of the plan?*
2. *Does Council concur with the findings in the report or prefer any of the potential stabilization/preservation options?*
3. *Does Council support staff's recommendations or do you prefer another approach?*



Reiling Dredge
Preservation Master Plan
Draft Report
June 2014
SHF Grant No. 2013-M2-043
Deliverable #6



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1



PROJECT INFORMATION

PROJECT GOALS

The primary objectives of this project are to conduct a thorough investigation of the structural stability and integrity of the dredge, develop recommendations for both short term stabilization and long-term preservation of the structure, and to develop a plan for interpretation and use of the site. In addition, the possibility of a National Register of Historic Places nomination was considered and potential boundaries for such a nomination are still being considered. This master plan addresses how best to interpret and preserve the dredge and its site while balancing other interests and goals for the area including stream restoration and recreational uses. This project was paid for in part by a State Historical Fund grant from History Colorado, the Colorado Historical Society.

PROJECT PROCESS

Public engagement is key to the success of this project. The site is publicly owned, work on the site would likely be at least partially funded with public monies, and public interest is high.

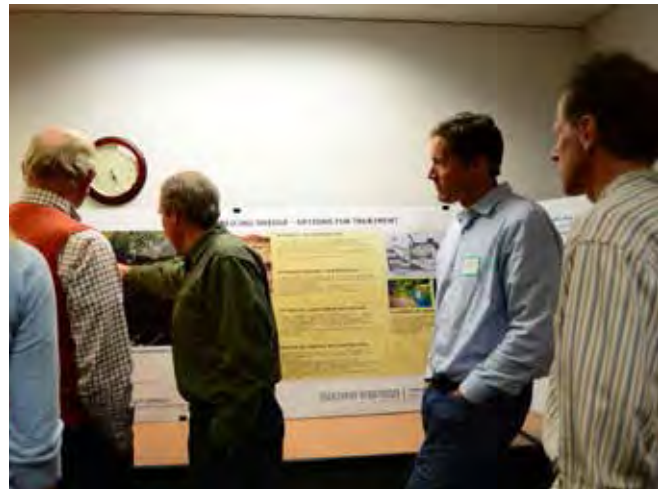
The first public outreach event was held August 14, 2013. This event included a presentation at the dredge site which included a summary of dredge mining operations, mining operations in the valley, information regarding work completed to date, and discussion of site interpretation and dredge stabilization strategies. A short hike occurred around the site with discussion regarding extant surface archaeology. Following the time on site, an open house was held at the Breckenridge town hall to allow time for public comment regarding the dredge and the proposed site interventions.

The second public outreach event was held on November 21, 2013. This event included an open house at the Breckenridge town hall. The project team presented findings to date including the condition of the dredge with options for stabilization, site interpretation and analysis, and discussion regarding long term uses for the site as well as boundaries for a potential national register nomination.

PROJECT SCHEDULE

August 14, 2013	Public Outreach Event #1
November 21, 2013	Public Outreach Event #2
February 20, 2014	Draft Assessment and Preliminary Recommendations Submitted for Review
March 31, 2014	Collect Comments Regarding Draft
June 16, 2014	Draft Preservation Master Plan Submitted for Review
July 2014	Collect Comments Regarding Final Document
August 2014	Master Plan Project Complete

The timeline for implementation of the recommendations outlined in this report has not yet been established. Portions of the work may be eligible for State Historical Fund grant funding once the structure is designated at a local, state, or national level.



Top Left Photo: Reiling Dredge - Winter 2013
Middle Left Photo: Reiling Dredge - Fall 2014
Bottom Left Photo: Public Outreach Event #1

Top Right Photo: Reiling Dredge - Summer 2013
Bottom Right Photo: Public Outreach Event #2

ARCHITECT:

SLATERPAULL Architects, Inc.

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303-607-0977

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970-429-7499

Contacts:	Jane Lanter	jane@bluegreenaspen.com
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P.O. Box 271400

Fort Collins, Colorado 80527

970-377-2453

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STRUCTURAL ENGINEER:

Atkinson-Noland & Associates

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Boulder, Colorado 80302

303-444-3620

PROJECT COORDINATOR / GRANT RECIPIENT CONTACT:

Breckenridge Heritage Alliance

309 North Main Street

Breckenridge, Colorado 80424

970-453-9767 x101

CONTACT:	Larissa O'Neil	larissa@breckheritage.com
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HISTORY COLORADO (PROJECT FUNDER):

State Historical Fund
1200 Broadway
Denver, Colorado 80203
303-866-3536

Contacts: Anne McCleave anne.mccleave@state.co.us
Astrid Liverman astrid.liverman@state.co.us
Heather Peterson heather.peterson@state.co.us

PROJECT BACKGROUND

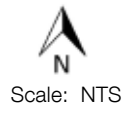
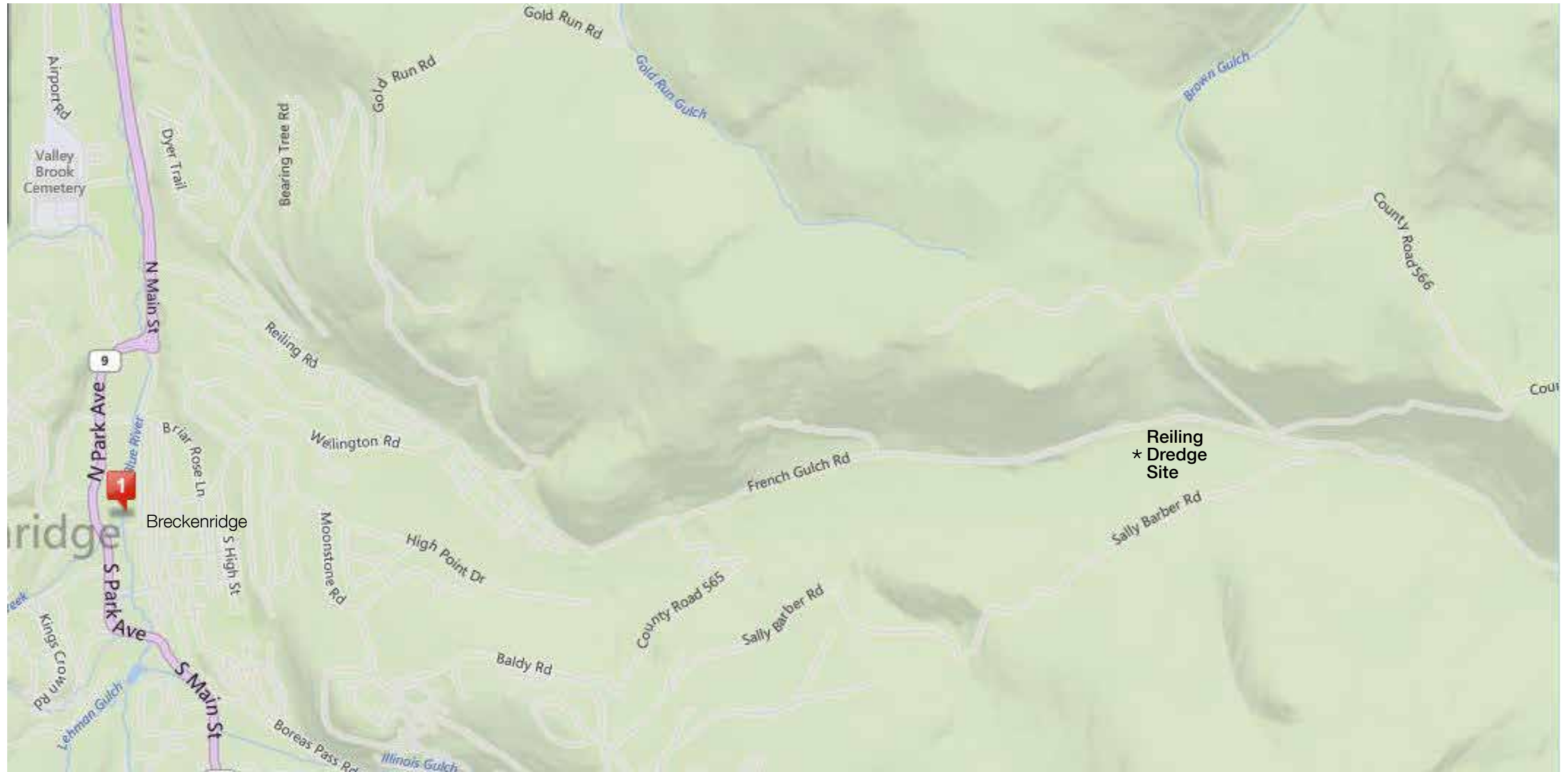
The land on which the dredge is located is owned jointly by the Town of Breckenridge and Summit County. The property is managed by the Open Space and Trails Departments of the two government entities. The site was purchased primarily to prevent development from occurring. The site was acquired with interest in not only preserving the dredge, but also restoring the stream through French Gulch, and enhancing and increasing recreational opportunities in the area.

Prior to this project, the site has been extensively documented. In 2002, a Historic Structure Assessment was completed for the dredge. In 2008, Western Mapping Company and the National Park Service documented the dredge. Their documentation included aerial and terrestrial mapping, as well as non-invasive underwater survey and documentation of the submerged sections of the dredge. The preservation master plan includes further research and documentation of the dredge and surrounding site, as well as proposed treatment strategies for both the dredge and the surrounding site.



Reiling Dredge from trail

VICINITY MAP



SITE CONTEXT



Dredge and Dredge Pond



The dredge itself remains in its original pond, with dredge piles extending east and west from the dredge site. To the east of the dredge and pond a 'loop' of dredge piles is visible, indicating where the dredge turned around. To the north of the dredge piles is French Creek.

2



HISTORY AND SIGNIFICANCE

[HISTORY OF THE DREDGE](#)

Constructed in 1908, the Reiling Dredge was the eighth dredge in Summit County to effectively mine gold-bearing ground. The dredge was built by Henry J. Reiling in the elaborate California Dredge style. The dredge was built for the purpose of extracting gold from stream channels. The dredge's best, most cost-effective use was mining at bedrock. In the Reiling Dredge vicinity, bedrock varied from 30 to 45 feet in depth. After the initial week of operation the dredge netted approximately \$9,000 worth of gold. In 1910, records indicate that the dredge produced approximately \$150,000 in gold. (Refer to Fountain, Bill & Mather, Sandra, Chasing the Dream: The Search for Gold in French Gulch for further information concerning productivity of the Dredge.)

In winter of 1912, when operation of the dredge was not possible due to weather conditions and the lack of a heating system on the dredge, the Reiling Dredge underwent extensive repairs. In 1913, the dredge's bucket line and bucket ladder were extensively damaged by a cave-in which occurred near the front of the boat. Shortly after resuming operation, the dredge reached the end of its company's claim and the company was forced to transport the dredge across land to a location upstream by approximately a mile. The dredge continued operations in 1914, extracting gold from bedrock approximately 40 feet below, and cutting a path 400 feet wide. In May 1915 the largest nugget reported from the dredge was recovered.

By 1917, four dredge boats were in operation in the Breckenridge vicinity. The Reiling Dredge continued operation with little incident of note through 1917 and 1918. In 1919, the dredge hit a large rock which caused it to sink approximately 7 feet into its pond. The dredge was repaired and continued operations until 1922. At this time, the dredge was purchased by the Florence Gold Dredging Company for \$50,000. On November 19, 1922, the dredge sank and never worked again. To this day, the dredge remains in this location, 2.6 miles east of Breckenridge at an elevation of 10,000 feet.

Since 1922, the dredge has remained in the same location in a state of on-going decay. A sequence of historic photos shows the decay occurring on the dredge itself. Loss of critical structural members at various points in time led to compromise of the structural integrity of features such as the exterior walls and roof which in turn also collapsed.

An archaeological survey for the site was completed in 2000 and in 2001, a historic structure assessment was conducted for the dredge. In 2008, the Town of Breckenridge was awarded a grant from the State Historical Fund for mapping and documentation of the dredge.



1908



1911



1920

1964



1965



1980s



Historic photos courtesy of the Breckenridge Heritage Alliance & Bill Fountain

The historic significance of the dredge lies in its uniqueness and historic integrity. The Reiling Dredge has one of the most intact dredge landscapes of its type in the United States. The Office of Archaeology and Historic Preservation is engaged in on-going research to determine the historic significance of the dredge, contacting state historic preservation offices across the nation to establish which other dredges are extant and how their site integrity compares. Comparable dredges are located in Canada, Montana, and Alaska; however, none of these dredges remains in situ in its pond in addition to having a high amount of intact dredge piles. In addition, the dredge site is uniquely accessible, with only a short walk along a well-maintained path required to reach the dredge site.

At many dredge sites, the tailing piles have been removed, often harvested for their value as gravel or aggregate. This strategy has been considered at the Reiling Dredge site, however, it has yet to be agreed upon by all stakeholders. These piles demonstrate the dredge's operation and provide a tangible example of the destruction to the landscape which results from dredging operations.

Many of the other extant dredges are no longer in their dredge ponds, which also makes the Reiling Dredge unique. The pond was an integral part of dredge operations, and therefore, an important consideration when establishing site integrity. The presence of the pond contributes to the unique nature of the dredge.

Other extant dredges in the United States and Canada are of different eras of construction or are different types of dredges, which also contributes to the significance of the Reiling Dredge.



Extant dredge piles to the east (left photo) and west (right photo) of the dredge site. Note some level of natural reclamation is visible with vegetation beginning to gain purchase in the dredge piles.

3



DREDGE CONDITION ASSESSMENT

Dredge boats were constructed to retrieve gold in bedrock, too deep to be accessed safely via other methods of mining. Prior to construction of a dredge, a large pit was dug, which would later be filled with water to float the dredge boat. Once the dredge boat was constructed and was floating in its pond, wire cables, called tenders, were extended from the dredge to the shore, wrapped around a deadman (a large log buried underground), weighed down with boulders, and buried approximately 3 feet. A spud pole at the rear of the boat was inserted into the bed of the pond, and was also used to anchor the boat.

A bucket line dug at the bank of the pond and pond bed. Gold-bearing gravel and mud were deposited from the bucket line into a trough. The trough carried the material into a trommel. A water pipe ran through the center of the trommel, spraying water at a high pressure in all directions. The gravel was sent out of the trommel through various sizes of openings, into sluices. In the sluices, riffles lined with mercury trapped the gold, forming an amalgam. Larger rocks exiting the trommel were sent up the stacker at the rear of the dredge. The stacker deposited the rock behind the dredge, forming large rock piles, such as those seen around the Reiling Dredge's pond. As the buckets dug up more material and the stacker deposited material out the rear of the dredge, the dredge and its pond moved slowly.

Today, only a limited number of the original Dredge components are extant. Many of the metal pieces were removed and sold for scrap. Ongoing deterioration of wood components has led to failure of the wood members, which in turn, has led to collapse of various sections of the dredge.

DREDGE HULL STRUCTURE

Description: The hull is the main body of the dredge, including the sides, bottom, and deck of the boat. Most of the hull of the Reiling Dredge is submerged in the pond; parts of the deck are above water. The hull is constructed of wood planks. Openings which provide access to the interior of the hull are visible on the deck.

Condition: National Park Service divers evaluated the condition of the dredge components that are submerged. In general, the submerged components are in fair condition. The constant submersion has prevented the wood deterioration which occurs to wood subject to a cycle of wetting and drying.

Much of the deck above the surface of the water is covered with soil and vegetation. Sections of the deck have deteriorated to the point where the wood is no longer extant. The soil and vegetation on the deck are causing further deterioration of the wood. The section of deck below the surface of the water is in fair condition, with many of the original wood components extant but damaged or decayed.

Recommendations:

Refer to Section 4: Preservation Strategies for the Dredge for recommendations pertaining to the deck. Recommendations are dependent on the approach selected for the project.



Divers evaluating underwater superstructure components



Extant enclosure



Divers evaluating the condition of the hull

DREDGE SUPERSTRUCTURE

Description: The superstructure of the Dredge includes the bucket line, trommel, and stacker.

Condition: The superstructure is in poor condition. A number of the original components are no longer extant. Some components are no longer attached to the Dredge or are partially attached to the Dredge. These items are visible underwater adjacent to the Dredge.

Recommendations:

Refer to Section 4 for specific recommendations. Reconstruction of some superstructure items may be considered depending on the strategy selected for the preservation of the Dredge.

DREDGE ENCLOSURE

Description: According to historic photographs, the Dredge originally had two levels above water. The superstructure was constructed of wood framing with vertical wood siding. The upper and lower sections of the superstructure had flat roofs which were presumably constructed of wood framing and wood plank decking which may have been covered with tar paper. The exterior walls had a number of window and door openings. The windows appear to have been double hung wood windows; the doors appear to have been wood doors in wood frames. None of the doors or windows are extant. One exterior wall of the superstructure is extant though much of the vertical plank siding is no longer present. The interior of the Dredge would have been unfinished with the wood components of which the dredge is constructed exposed on the interior.

Condition: The superstructure of the dredge is generally in poor condition. The wood components are in varying states of deterioration. The wood members at or adjacent to the water level have deteriorated to a much greater extent due to the wetting and drying cycles they are subject to. Other heavy timber framing members are also deteriorated. The original locations of connections and wood members no longer extant are discernible with some bolts and wood remnants visible.

Recommendations:

Refer to Section 4: Preservation Strategies for the Dredge for recommendations pertaining to the deck. Recommendations are dependent on the approach selected for the project.

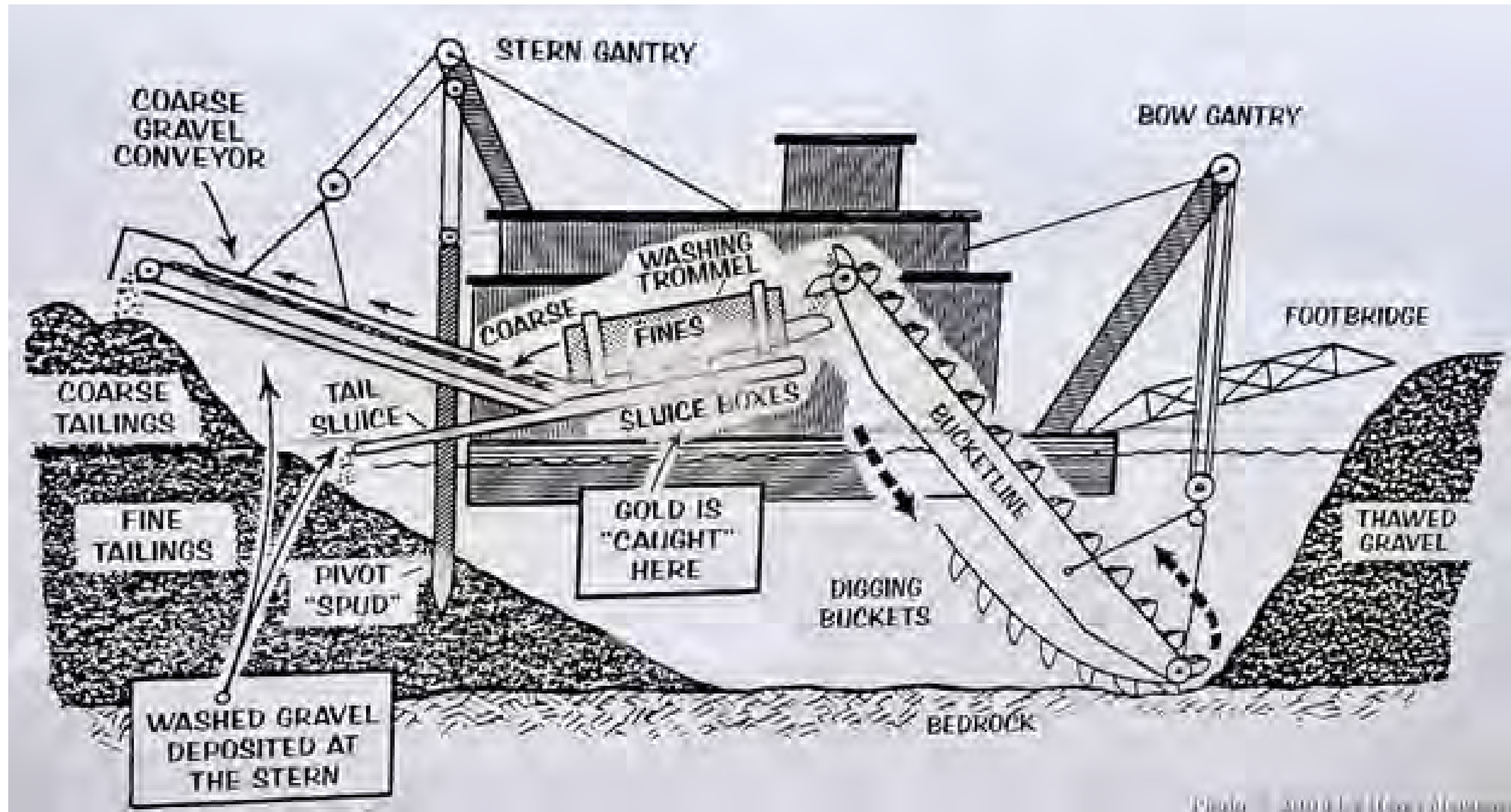
MECHANICAL & ELECTRICAL SYSTEMS

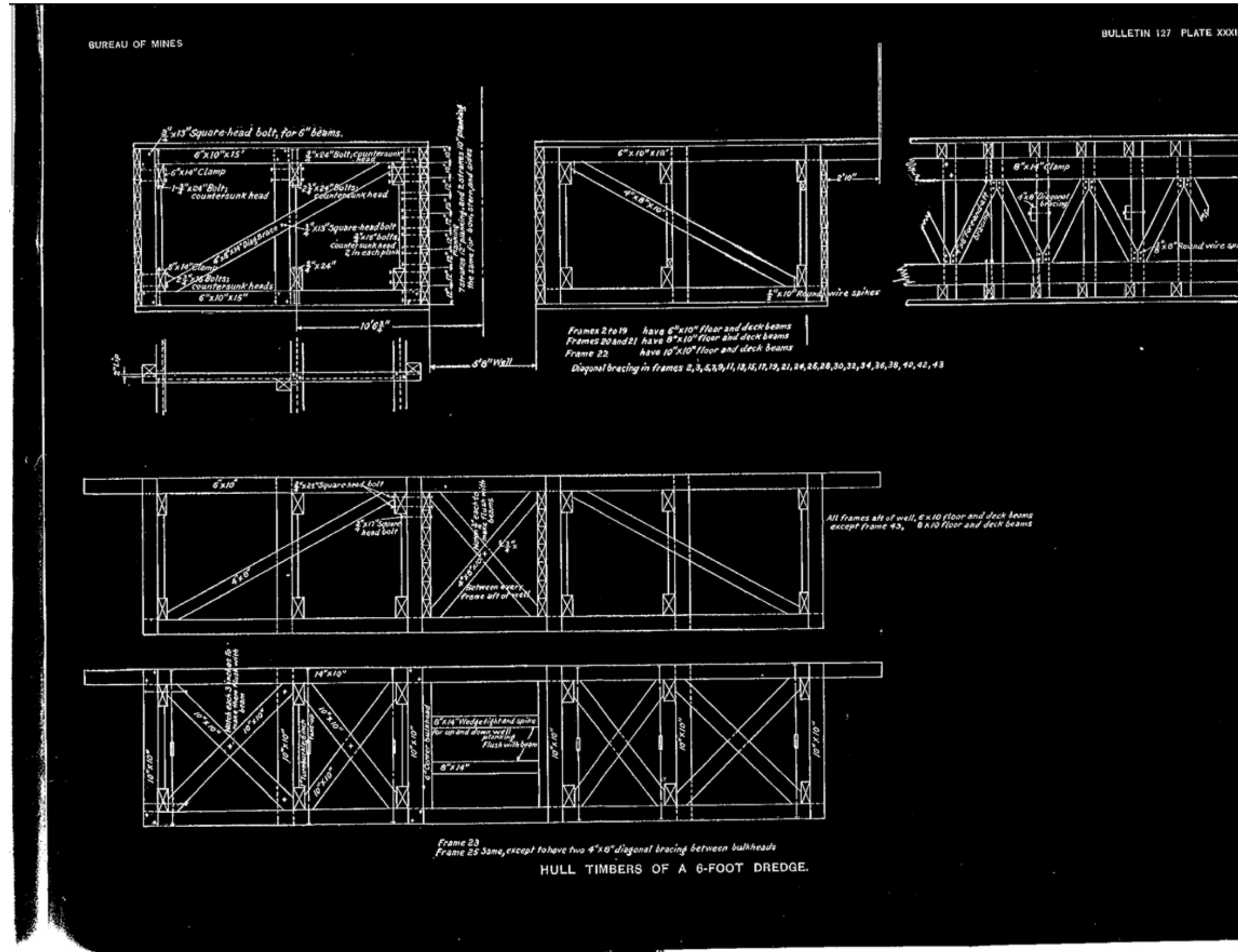
Description: The earliest dredges operated on steam power, later dredges were powered by electricity. Electrical power for the Reiling Dredge was provided by the Shoshone Plant on Colorado River - Central Colorado Power. Unlike the Reliance Dredge, the Reiling Dredge did not have a heating system. As a result, the Dredge could not operate during the winter months.

Condition: The Reiling Dredge no longer has mechanical or electrical systems.

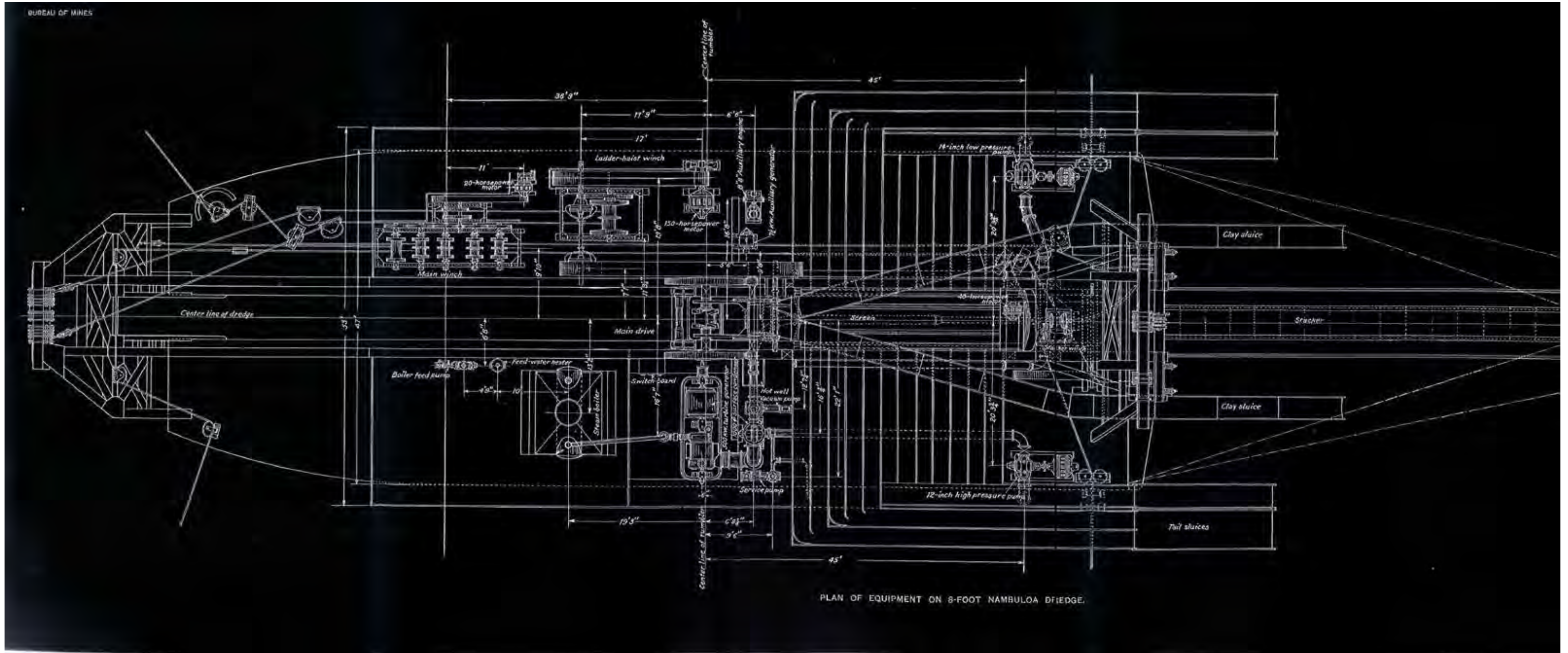
Recommendations: There are no recommendations for the mechanical or electrical systems for the Dredge.

There are no recommendations regarding the mechanical or electrical systems for the Dredge.

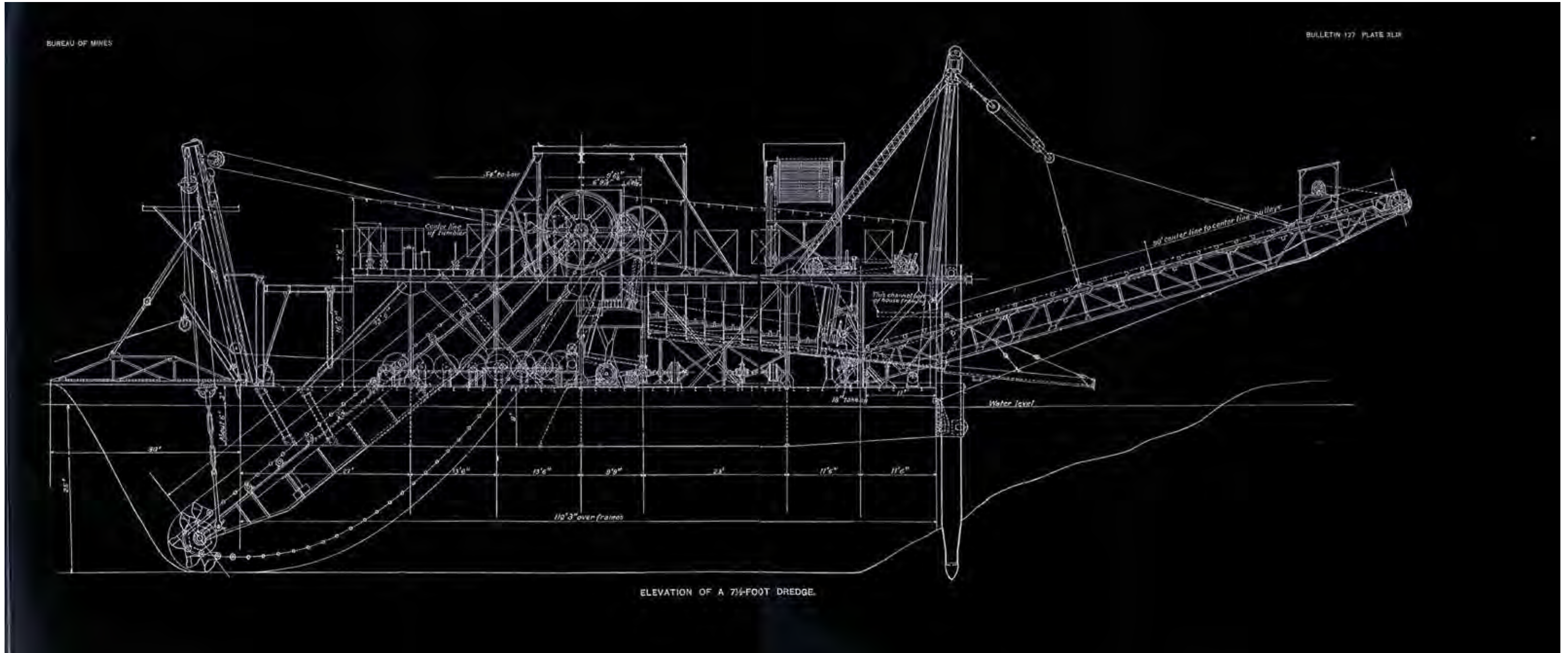




Typical Dredge hull timbers - drawing excerpted from Bureau of Mines Bulletin



Typical Dredge plan - drawing excerpted from Bureau of Mines Bulletin



Typical Dredge section - drawing excerpted from Bureau of Mines Bulletin

4



PRESERVATION STRATEGIES FOR THE DREDGE

This section of the report includes four preservation options with different degrees of intervention that address the longevity of the standing architecture (the remaining columns, trusses, etc. subject to wind loads and decay at the water line) and the portion of the deck currently exposed to repeated wetting and drying. Interventions include:

- 01: No intervention
- 02: Minimal intervention including cleaning / repairing the deck and raising the water level
- 03: Repair of the framework on either side of the ladder well, including intersecting cabin walls and roof, to stiffen the construction near the middle of the boat
- 04: Repair of the conveyor gantry at the rear of the Dredge

APPROACH

In what follows, an approach to stabilization and repair is outlined that is guided by the Secretary of the Interior's Standards for the Treatment of Historic Properties, the ICOMOS Principles for the Preservation of Historic Timber Structures, and the ISCARSAH Principles and Guidelines. In proposing preservation options, thought was given to preservation goals as they apply to existing fabric, the original structural configuration of the dredge, and the craft practices that were used to produce the structure.

In order to protect resource integrity and introduce as little new material as possible, maximum use should be made of the existing timber. This will involve evaluating fallen / damaged wood with respect to its potential for reuse in conducting repairs, splicing new timber into historic elements to replace decayed / damaged portions, and cutting traditional joinery in repairing sections of broken or missing assemblies. This requires a different set of skills and tools than those used in framing new structures, and site stewards should only entertain proposals from framing crews skilled in the repair of historic timber structures.

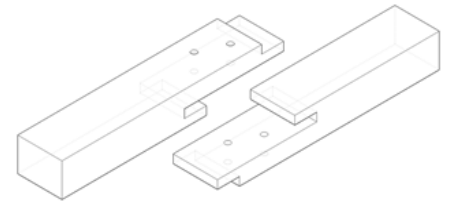
When considering repair techniques for the Dredge, it is perhaps important to note that, while in service, the mining company would likely not have repaired heavily loaded elements by splicing in new timber to replace deteriorated material; it is more likely that damaged elements would have been replaced entirely. However, because of the historic significance of the Dredge, the project team has determined that any intervention should conserve as much historic fabric as possible while recovering portions of the historic structural system needed to achieve stabilization goals. If we consider the tradition of heavy timber framing, of which the Dredge is certainly an example, then in this broader context scarfed splices and dutchman inserts can certainly be considered traditional. In addition, they constitute a means by which a substantial portion of the surviving historic material can be retained while meeting the reduced structural requirements associated with current loads.

SCARFED SPLICES

Traditional scarf forms can be used to splice new timber into deteriorated members. These repairs are not invisible, but the visual impacts are not obtrusive or unattractive, and the joinery is interesting to look at. Limited replacement of decayed portions of members using traditional joinery has the advantages of preserving the salvageable portions of historic elements as well as the historic craft tradition that originally produced the structure.

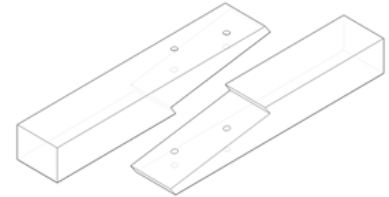
DUTCHMAN REPAIRS

Wood dutchman repairs can be let into deteriorated portions of historic elements where decay is limited in extent. Dutchman inserts will improve the bearing area of deteriorated members, improve the performance of connections, and will fill recesses and cavities that might otherwise collect water. Using wood to make the repairs has the advantage of introducing repair materials that have physical and mechanical properties that are similar to the original material while maintaining aesthetic continuity.



REPLACEMENT IN-KIND

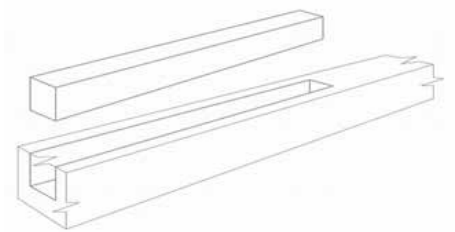
Some of the structural timber is so thoroughly deteriorated that the only way to recover adequate capacity is by replacing the member in-kind. In replacing the wooden elements of a historic structure, guidelines often urge the use of material matching the original in species and of at least equal quality. For the Dredge repairs, Douglas-fir timber of select structural grade should be used for all of the repairs. High-quality materials will have greater structural capacity and improved durability, meaning that for a given repair the investment in making the repair will yield better performance and longer-lasting results.



Two forms of a scarfed splice: halved (above) and splayed (below)

BORATE RODS

Installing borate rods in the above-water members can reduce the rate of deterioration due to wood decay. Borate rods can be inserted into holes drilled into the wood where deterioration has been identified. Borates are low-level toxicity preservatives that are used to improve the durability of both new and in-service wood products. Borates require moisture to migrate through the wood but can be leached from the wood with too much exposure to moisture; therefore, they will need to be placed above the water line but in the zone of active deterioration. Borates also effectively control termites, carpenter ants, a variety of beetles, and other wood boring insects. Topical borate treatments (liquids) applied to the surface offer no protection to the more vulnerable interior of large timbers and are not recommended.



Typical Dutchman repair. The decayed portion of the existing member is removed, and a new piece is cut to fit tightly into the void. The repair may be secured with mechanical fasteners and/or an adhesive.

To install borate rods, holes are drilled into the areas where moisture is a concern, the rods are inserted, and the holes are filled with either a pressure-treated wood plug or a plastic threaded plug. Plastic threaded plugs are recommended for the Dredge to facilitate the insertion of additional rods during future inspection cycles. Borate rods are typically effective for three to ten years depending on environmental conditions, but they should be inspected annually at the Dredge given the extreme moisture exposure of most of the elements. The borates should be used as part of a cyclic, long-term maintenance program

RIGGING

The repairs described below require moving and lifting several relatively large timbers and timber assemblies on a site inaccessible to a crane. Rigging for these lifts will be challenging given the difficult access of the site and the partially submerged condition of the deck. In the stabilization strategy outlined here, it is assumed that timber, tools, and gear will be delivered to the site by helicopter. Lifting lightweight loads can be done using the Dredge structure, augmented by towers of structural staging set up on a reinforced deck. Larger loads (the conveyor gantry) will require erection of a temporary crane.

This outline includes order-of-magnitude pricing for each item in the scope, with the exception of option 4; prices are listed for individual items and should be considered cumulatively to arrive at an estimate of total costs. The prices approximate the fees that Breckinridge Heritage Alliance can expect to pay for repairs, provided experienced rigging and timber-framing crews can be found locally. If crews are brought in from outside the area, allowances for travel, housing, and per diem will need to be added to this budget. The helicopter costs included here assume that there will be one mobilization episode and one demobilization episode, with additional support for the conveyor gantry lift. If the project is phased over a period of months or years, there will be additional costs associated with delivering materials to the site.

OPTION 01: NO INTERVENTION

Goal: Allow structure to be reclaimed by nature

Timeframe: Dredge may be unrecognizable in 20 years due to continued decay and structural failure

Cost: \$0

This option would allow for the Dredge to be reclaimed by nature. It is not recommended, but provided as a baseline so stakeholders know what will likely happen if no action is taken. Under this scenario, the structural timber and other wood components of the Dredge would deteriorate due to a combination of weathering, wood decay, insect attack, and excessive window or snow loads until individual components fail and collapse into the pond. Without intervention, it is likely that the key individual structural members of the Dredge will fail within 10 years due to lack of support. The Dredge will continue to undergo alterations by natural forces until it becomes unrecognizable, a process that may take as few as 20 years. At some point, the Dredge will be unrecognizable. There is no financial cost associated with implementing this option.



Anthony & Associates examining the condition of the deck of the Dredge.



Fallen superstructure visible underwater.

OPTION 02: PRESERVATION BASED ON MINIMAL INTERVENTION

Goal: Improve the stabilization and extend the service life of the structural members of the dredge for an undefined period of time.

Probable Cost: Task 01: \$90,000

\$35,000 Timber frame labor (2.5 weeks @ \$14,000/week)

\$35,000 Decking (10,000 BF or 1500 SF plywood deck with cribbing)

\$20,000 Helicopter allowance

Task 02: Assessing the cost of raising the water level is beyond the expertise of the project team and outside the scope of this Master Plan study.

This option has two distinct tasks:

Task 01: Cleaning and repairing / reinforcing the deck: Clearing the deck of soil and vegetation will allow for the structure of the Dredge to be more clearly interpreted and removes soil and plant roots that can result in decay and disintegration of the wood decking. With the exception of Option 01, this is recommended regardless of the other preservation options selected, with the caveat that clearing the deck is likely to uncover areas too fragile to walk upon; as a result, additional precautions may need to be taken to prevent visitors from climbing out onto the Dredge.

If additional stabilization or repairs (as described in the preservation options below) are to be done, then cleaning the deck will need to include selective removal of debris, and repair/reinforcement of the deck so that repair of the standing structure can be done safely and efficiently. Making timber frame repairs to the standing elements will entail the storage of repair timber on the deck, clearing pathways across the deck so that large timbers can be moved into position using rollers, and each repair site will have to be cleared of debris in order to raise repaired elements. Framers will evaluate fallen original timber with respect to its potential for reuse in the repaired structure. For example, large portions of the conveyor gantry columns can certainly be reused in the repair of the gantry; it is equally likely that debris piles nearer the middle of the dredge will yield portions of the ladder well framing and port cabin walls that can be salvaged. Given the level of existing documentation, the potential exists for returning larger debris to the deck following repairs if that is the desire of the site stewards.

Strengthening of the deck can be accomplished through repair and/or reinforcement. Repair will involve the removal of decayed or damaged decking incapable of supporting required loads (the loads that will be imposed during or as a result of repair of the standing structures), and piecing in-kind replacement material into the voids. As an alternative to repair, it may be possible to achieve the necessary capacity by overlaying plywood and/or timber cribbing on deteriorated areas; these can be removed at the end of the project.

Task 02: Raising the pond water level: If feasible, raising the water level is recommended, regardless of the preservation option(s) selected, other than Option 01. The Dredge assessment team feels strongly that this provides the greatest long-term benefit to the preservation of the Dredge. The line of active deterioration will be forced to move higher into the structural members and into sound wood, so the rate of deterioration will slow. The areas of most severe deterioration will be under water, where the lack of oxygen will severely inhibit additional deterioration by wood decay. The raised water level should completely submerge the deck as well, which would stop most of the deterioration of the decking. With the decking completely submerged, it will be less inviting for visitors to wander out onto the fragile deck surface and will protect the structure from additional deterioration due to vandalism and curiosity. The deck, if cleared of dirt and vegetation, could be clearly seen through the water.

Alternatively, lowering the pond water level to expose part of the hull is not recommended. Lowering the water level would expose the vertical and diagonal members to higher wind loads and generate increased stresses on the cross-section of elements with the most deterioration. Lower the water level would improve access to the deck, leading to additional safety concerns as more visitors wander onto the deck. Additionally, lowering the water level would expose all the structural timbers currently below the water surface to deterioration, which would necessitate future repairs an order of magnitude greater than those currently recommended. However, some of the repairs outlined below

may require lowering the water level temporarily in order to make connections below deck; as a result the Dredge team is interested in information regarding how this might be accomplished for the period of months when repairs are made. Assessing the feasibility and cost of raising and maintaining the water level is beyond the expertise of the assessment team and outside the scope of this project.

OPTION 03: PRESERVATION BASED ON REPAIR: LONG-TERM STABILIZATION OF THE MAIN STRUCTURE ONLY

Goal: Preserve and stabilize the dredge for longevity.

Probable Cost: Task 01: \$76,450 (+ the probable cost of Option 02)

\$2,500 Engineering (bracket design)

\$42,000 Timber frame labor (3 weeks @ \$14,000/week)

\$12,950 Timber, dimensioned lumber (2500 BF timber @ \$3.50; 1200 SF sheathing @ \$3.50/SF)

\$6,000 Hardware (brackets, bolts, structural washers)

\$3,000 Equipment rental (winch @ \$1,000/week, staging @ \$500/week)

\$10,000 Helicopter allowance

Task 02: \$51,500

\$1,500 Engineering (bracing design)

\$28,000 Timber frame labor (2 weeks @ \$14,000/week)

\$5,500 Timber (1000 BF (12x12x30) @ \$5.50/BF)

\$3,500 Hardware (brackets, bolts, structural washers)

\$3,000 Equipment rental (winch @ \$1,000/week, staging @ \$500/week)

\$10,000 Helicopter allowance

This option assumes the scope of Option 02 is completed in addition to the following tasks:

Task 1 - Repair and stabilize the port cabin walls and roof, and replace missing diagonal braces on the south side of column C8 on the port side of the dredge to provide long-term stabilization. These braces may be in the water adjacent to the Dredge but their condition may warrant repair or replacement. This would recover cabin construction lost since the 1980s, and would consist of repairing and stabilizing portions of the cabin that survive in the debris pile on the deck, repairing historic members as necessary, and in-kind replacement of members too deteriorated to salvage. Walls and roof should be sheathed to stiffen the construction. The construction will be exposed to wind loads and framing should incorporate wind bracing at roof level and perpendicular to the long wall on the south. It should be noted in this context that this option was first explored as a way of stiffening longitudinal lines of framing along the ladder well. This goal can be more simply accomplished by installing cross-brace ties between the two lines of framing.

Cabin walls will occupy deck space currently covered by the existing cabin wall debris; the debris and deck will need to be closely examined to determine where walls were originally located and their probable size(s). To maximize the stiffness of the construction, each of the walls will be sheathed on one side (sheathing on two sides is likely to trap water and promote decay). Wall framing will be reinstalled using original material, where possible. Replacement material will replicate the original construction in terms of timber dimension and connection details (including the bracing in upper bays), and replacement sheathing will duplicate the original depending on location (different profiles appear to have been used on the cabin interior and exterior). Most of the historic wall sheathing remains on site and will be reinstalled wherever possible. The walls will be repaired and assembled on the deck and lifted into position from beams supported on the ladder well structure and towers of structural staging set up on deck. Connection of the wall segments to the deck will be through the decking material, so it will be important to ensure that sound decking is available for making connections at each of the wall locations.

Repairing (reinstalling) diagonal bracing south of column C8 will provide additional support to these columns, and stiffness to the east end of the ladder well framing. Originally, diagonal braces terminated below deck; the type of connection is currently unknown. Since it is unlikely that the pond can be drained sufficiently to provide access to the entire hull structure (which would be preferable from the point of view of replicating the original connections), it is recommended that a design be developed for making connections at the level of the deck or its immediate understructure. This can be accomplished with a pivoting bracket that installs (with bolts) in a kerf in the base of a column or brace and is bolted through the deck and a supporting joist. This way, the bracket can be fastened to the deck, the repaired element can be rolled to the bracket location, the connection can be made to the column (or brace) base, and the element pivoted into position using come-alongs, a chain hoist, or hand-powered winch.

Task 2 - Repair ladder well framing on the starboard side. The “truss” made up of diagonal timbers on the port side of the dredge is largely intact adjacent to the ladder well and extending toward the bow (the emergency stabilization cable is attached to a vertical post in the port truss). Some of the timbers are missing in the truss on the starboard side, and should be replaced in-kind to add stability to the existing structure and provide additional locations for cross bracing between the two longitudinal lines of framing.

At least some of the missing elements are visible in the debris pile on the starboard side. These should be evaluated for reinstallation; new wood can be spliced into original members to replace decayed material. Lifting these timbers can be done using the ladder well structure on the port side, augmented by towers of structural staging set up on the starboard deck. Connections should replicate the bolted plate connections on the port side. Originally, the two lines of framing (port and starboard) were individually braced by cabin structures on either side of the ladder well. Under this scenario, cabin walls will not be re-erected on the starboard side; instead, bracing will be installed across the well. Bracing could include wind bracing (in timber) between the top plates, or cross-brace ties of iron or steel between the vertical and subvertical members.

OPTION 04: PRESERVATION BASED ON REPAIR: INCLUDE CONVEYOR GANTRY ON THE STERN OF THE DREDGE

Goal: Aid in interpretation to allow the public to better understand dredge operations; preserve and stabilize the dredge

Probable Cost: \$191,000 (+ the probable cost of Options 02 & 03)

- \$5,000 Engineering (crane design, specifications for cable guys, anchors)
- \$112,000 Timber frame labor (8 weeks @ \$14,000/week)
- \$11,000 Timber (2000 BF @ \$5.50/BF)
- \$16,000 Hardware (brackets, bolts, eyebolts, washers, cables)
- \$32,000 Equipment rental (winch @ \$3,500/week, staging @ \$500/week)
- \$15,000 Helicopter allowance

Under Preservation the SOI states for repairs that “when the physical condition of character-defining materials and features requires additional work, repairing by stabilizing, consolidating, and conserving is recommended”. The conveyer gantry on the stern of the Dredge has failed at the base but most of the timbers are either on the shore or in the pond. This option is intended to repair this character-defining feature of the Dredge.

Given that the stabilization options include repairing the port cabin and replacing two missing braces on the port side of the dredge and the missing timbers in the starboard truss for stabilization, a significant percentage of the original frame and massing of the central portion of the Dredge would be reinstated, greatly aiding in interpretation. This additional treatment option would repair timber portions of the gantry at the stern, enabling the public to better understand the configuration of the Dredge when it was operational. This treatment option is recommended only in conjunction with the repairs described above.

Gantry columns survive, along with hardware for reattaching horizontal members. These should be repaired and reused. It is likely that the gantry will be reassembled while lying partially on the deck and partially on the shore; the weight of the entire assembly is likely to be

approximately 6 tons. In one scenario, columns would be rolled to pivoting brackets (see the description in Option 3 above) connected through the deck to the framing below. Column loads would be transferred to hull framing through steel plates installed at deck level and crossing 3-4 joists. Following assembly and connection of horizontal framing, the gantry would be lifted partially into position using a temporary crane installed at the vertical columns (C8) near the middle of the deck and an additional lifting point on the spud columns at the stern. The gantry frame would be temporarily braced, using the spud columns, for repositioning of the crane. Following the final lift, the gantry would be guyed to existing framing and to concrete anchors installed onshore and in the water on either side of the hull. Pursuing this option will require engineering design of a temporary crane assembled from relatively lightweight (< 2700 lbs) components; concrete anchors can be transported to the site as precast units.

The gantry lift could also be accomplished using a large helicopter, or a cable tram with towers on opposite banks, with the cable oriented axially over the center of the hull. For the tram, tower foundations might be constructed of large (2700-lb.) concrete blocks transported by helicopter and assembled into rafts onsite. Each of these options, however, will add considerably to the cost of the repair and should only be pursued if construction of a lightweight temporary crane proves infeasible

RECOMMENDED APPROACH

A combination of Options 02 & 03 is likely the most appropriate strategy. Option 01 is not recommended as loss of the Dredge would occur. Option 04 is likely cost prohibitive, however, may eventually become viable. Starting with work identified in Option 02, project phasing may be possible.

5



ADJACENT SURFACE ARCHAEOLOGY

01: CABIN DEBRIS

Current Condition: The cabin is no longer extant; only a debris field remains. Debris primarily consists of wood framing materials and exterior siding materials.

Significance: The cabin was likely utilized by workers associated with the dredge operation.

Recommended Treatment Strategy: Reconstruction of the cabin is not recommended. The amount of extant materials does not allow for accurate reconstruction, nor are historic photos available which include the cabin. Include the cabin debris on a sign at the trailhead that indicates that the cabin debris are part of the site.

02: FLOATING SLUICE

Current Condition: The floating sluice is located to the northwest of the dredge. The boat is constructed of wood with metal reinforcement at the corners. The bottom of the boat is currently filled with sediment.

Significance: the floating sluice was used by dredge workers to service sections of the dredge and bucket line accessible only from the pond. When the dredge ceased operation, the boat was left on the ground in the forest, where it remains today.

Recommended Treatment Strategy: Include the floating sluice on a sign at the trailhead that identifies extant items relevant to the Dredge.

03: BOARDINGHOUSE PLATFORM

Current Condition: The boardinghouse platform is located southeast of the dredge. The remnants of the boardinghouse include a terrace and foundation remnant. The foundation was constructed by miners by stacking river stone along the west edge of the platform. A debris scatter associated with the boardinghouse includes materials that would indicate the building was a wood frame building with wood siding covered with tarpaper. A partially exposed pipe is extant, indicating that the structure had running water at some point. On the boardinghouse platform is a ring of river rocks, which formed a section of the hearth.

Significance: The boardinghouse was used by dredge workers as a residence. As such, the structure was a critical part of dredge operations, providing a glimpse into how the dredge workers lived.

Recommended Treatment Strategy: Include the boardinghouse platform on a sign at the trailhead that identifies the platform and its function.

Current Condition: Approximately four privy pits have been identified on the site surrounding the dredge. These pits are in varying states of identifiability. Some remain pits, up to a depth of three feet while others can be identified and located by extant structure materials such as walls, framing materials, and privy seats.

Significance: The privies were used by the dredge workers and as such were part of the dredge operations. Like the boardinghouse ruins, the privies provide a look at the life of typical dredge workers.

Recommended Treatment Strategy: Do not identify every privy pit on site. Trailhead signage could include information regarding how the miners lived in the area and indicate that privy pits are present on the site.

05: BUILDING PLATFORM

Current Condition: The building platform is located east of the boardinghouse platform. None of the building is extant and only sections of the platform are visible. Extant evidence indicates that the building was of wood frame construction with exterior wood siding.

Significance: The building constructed on this platform originally served as a boardinghouse and shop. The building was part of the complex of building surrounding the dredge, providing required facilities for the miners working on the dredge.

Recommended Treatment Strategy: Trailhead signage should include information relating to how the miners lived on site. This information could include relevant information regarding the extant building platform.

06: DREDGE CABLES

Current Condition: Cables originally used to anchor the dredge as it moved along are extant at several locations on site.

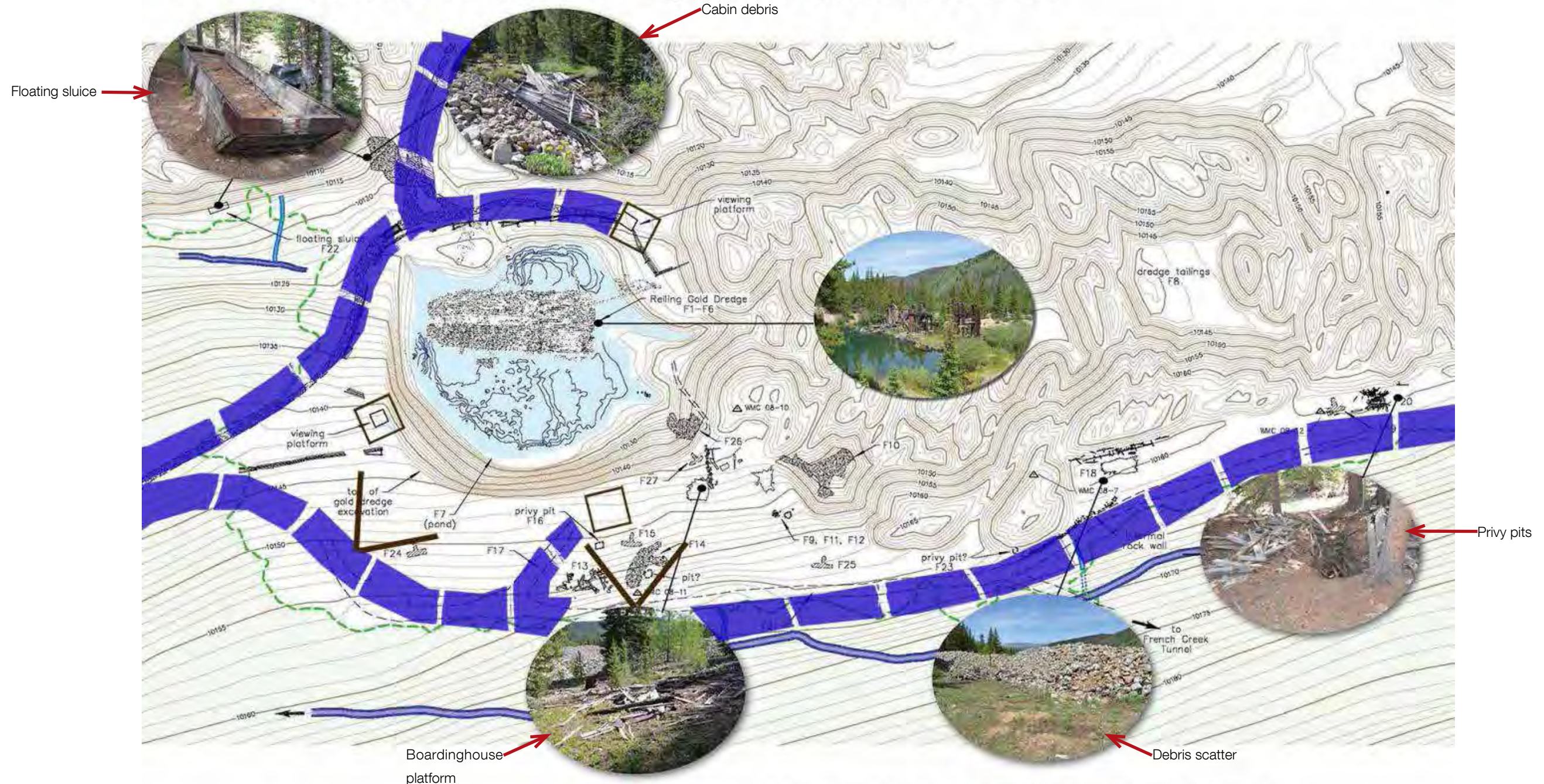
Significance: The cables were an integral part of the dredge's operation.

Recommended Treatment Strategy: The cables should be identified as part of the dredge's trailhead interpretive signage.

RECOMMENDED TREATMENT STRATEGIES

In general, not enough information or documentation exists to accurately reconstruct missing site features. The site elements which have extant remnants such as the cabin, boarding house, and privies are in a state of ruin. Though some overall information can be attained from these elements, not enough can be accurately attained to facilitate a reconstruction. Interpretation of site features should be accomplished through signage at the trailhead. This signage should include general information regarding the site and provide information about the extant items. Additional information regarding how the miners lived on site could be included. In addition, signs should be provided throughout the site to inform people not to disturb the site.

SURFACE ARCHAEOLOGY / INTERPRETATION



TOPOGRAPHICAL MAP | **COMMUNITY OUTREACH**
 Reiling Dredge Preservation Master Plan
Blatterfaul | Blugreen | Anthony and Associates | November 21, 2022

6



SITE INTERPRETATION

[PROCESS NOTES](#)

The Reiling Dredge Preservation Master Plan is conceptual in nature and provides a graphic framework for preserving, protecting and interpreting the significant qualities of the site. Elements of this plan are based on mapping and topographic information provided to Breckenridge Heritage Alliance by Western Mapping Company in 2008. This survey of the project site was neither comprehensive nor updated at the time of this planning process. Further study will be required prior to implementation of features that involve topographic intervention.

Input for this master plan has been collected from a variety of stakeholders, including representatives from Breckenridge Heritage Alliance, Town of Breckenridge Community Development, Breckenridge Open Space and Trails, Summit County Open Space and Trails, and the Colorado State Historical Fund. Public input has also been solicited through an outreach hike, two open house forums, and an online survey on the website Engage Breckenridge. The information compiled has helped to shape the recommendations of this master plan. The planning team appreciates the time and consideration given by every participant in this process.

A Preservation Master Plan is a graphic framework for **preserving, protecting and interpreting the significant qualities** of a site. This plan offers themes, strategies and design recommendations to lend **vision and consistency** to future development efforts.

"The Reiling stands in its original context and possesses a special character defined by its environmental setting, architecture, economy, traditions, and most importantly, its history."

-Stewart Architecture

The preservation master plan for the Reiling Dredge and the surrounding landscape will consider its historic significance, riparian restoration goals, recreational uses, educational and interpretive approaches, heritage tourism goals, and environmental impacts. The master plan will determine how best to preserve both the Reiling Dredge structure and the cultural landscape surrounding it while balancing the other uses and goals for the area.



Outline of Master Plan Process

In seeking to balance the objectives of the various stakeholders, it is important to identify parameters by which the larger historic site might be defined. Tailing piles form the context of the dredging operations as well as the site's connection to regional mining activities. Retention of the cultural landscape is critical to the interpretive experience of the historic remains - but should 'site' mean 'representative sample' of tailings or should it mean the entire extent of industrial disturbance?

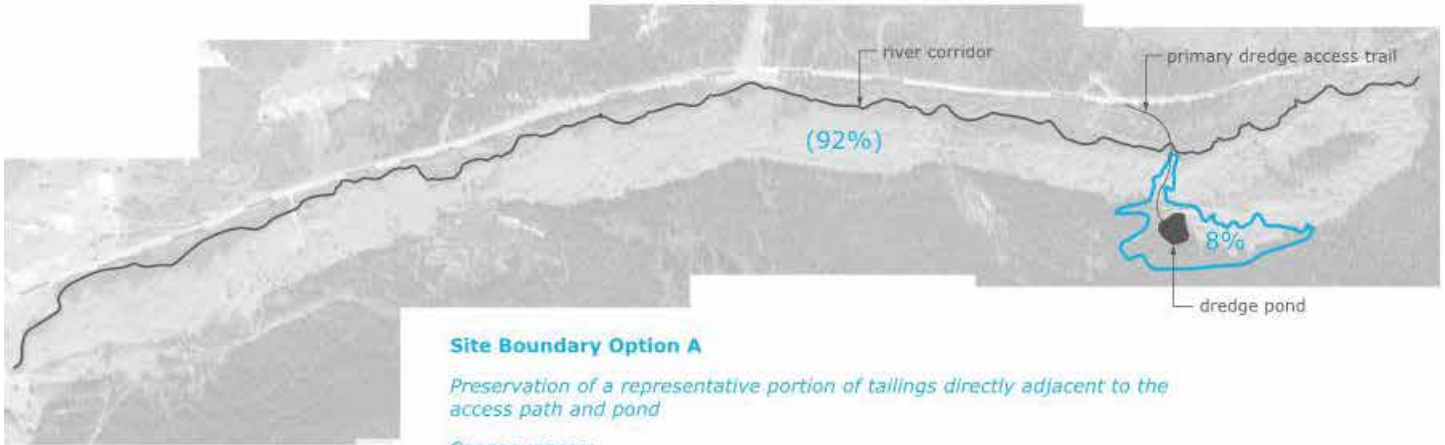
On one hand, the removal of the tailings would negatively impact the site's historic integrity. On the other, the site was purchased by Summit County Open Space and Trails and the Town of Breckenridge and is governed by the Golden Horseshoe Management Plan, which strives to 'protect important natural and historic resources of the Golden Horseshoe while balancing the development and management of its recreational opportunities.' It is important to identify a site boundary that allows these futures to coexist. Options for the site boundaries are illustrated on the preceding pages.

The planning team proposes the following criteria to recommend a boundary that balances visions for the dredge:

1. Permanent preservation of the dredge pond and structure
2. Permanent preservation of the majority of tailing piles within the viewshed of the primary Reiling Dredge access trail and pond and within 60 feet of the existing pedestrian bridge.
3. Establishment of a conditional preservation zone for tailing piles outside the limits described in #1 and #2 but within the primary interpretive (east-west) dredging axis. The term 'conditional preservation' is used to indicate that tailing piles would remain in perpetuity unless their disturbance is required to fulfill future potential creek restoration activity. Within the restoration area, development activities would be limited to those offering environmental restoration, habitat augmentation, and recreational use. (Note that details of any future creek restoration activity are not available at this time and will require further study, as recommended in the Action Plan at the end of this document.)
4. No designated preservation of tailing piles beyond the permanent and conditional preservation boundaries.

This strategy protects the site's historic significance as it preserves, to a great extent the elements that support interpretation of the Dredge's basic function and characteristics, the scale at which the dredge operated, the environmental impact of the dredging operations, and the accompanying unique surface archaeology, while allowing for the possibility of environmental restoration activity to occur in selected sections of the site in the future.

The portion of the larger landscape that has been developed and illustrated through this master planning process focuses on a smaller area proximate to the Dredge, but the principles of design intent, material language, and circulation apply within any boundary ultimately determined by its stakeholders.



Site Boundary Option A

Preservation of a representative portion of tailings directly adjacent to the access path and pond

Consequences:

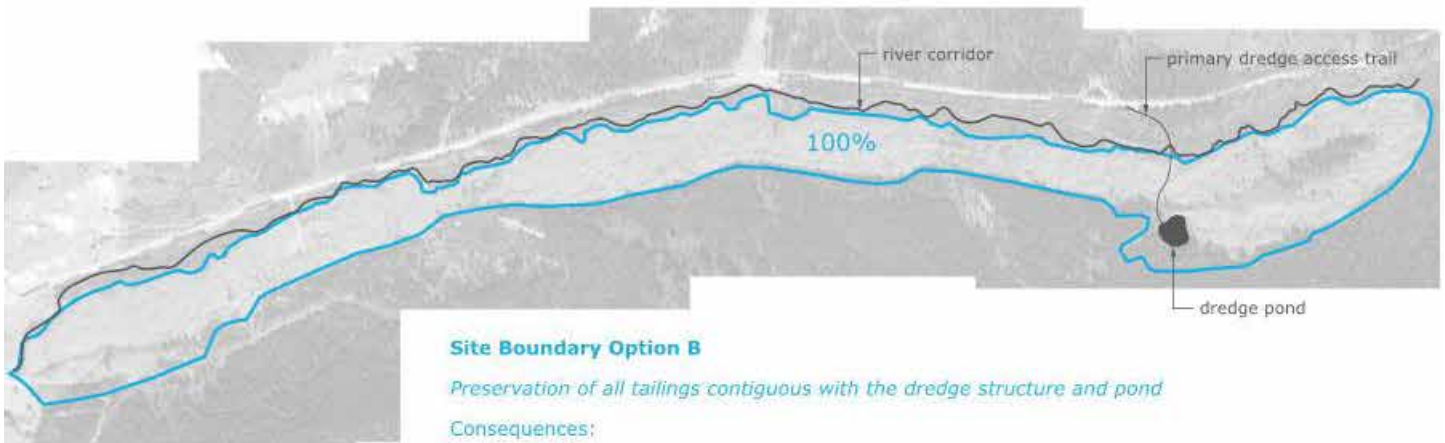
8% of historic landscape would be preserved; 97% of creek would be available for ecological restoration.

A lack of preserved context will inhibit visitors' ability to comprehend the scope of industrial operations;

The balance of the site would be available for a wide range of ecological restoration and passive development scenarios responsive to community demand.

Summary:

This option is not recommended. While it could allow a high degree of ecological restoration and flexibility, this option compromises to a great degree the historic context that makes the site unique and facilitates interpretation of the dredge structure.



Site Boundary Option B

Preservation of all tailings contiguous with the dredge structure and pond

Consequences:

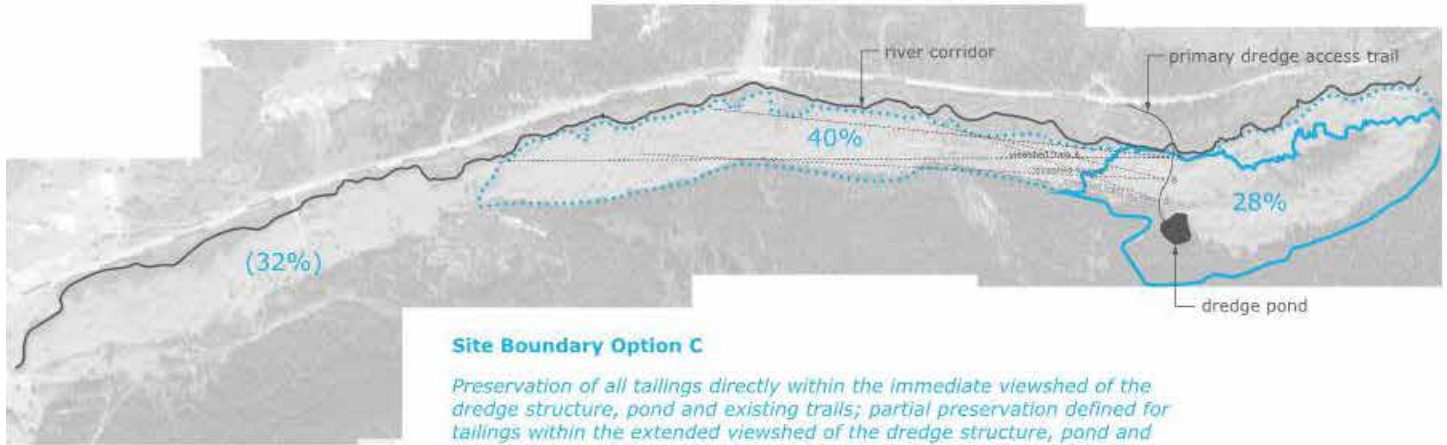
100% of historic landscape would be preserved; 0% of creek would be available for ecological restoration.

Preservation of the entire extent of dredge tailings in perpetuity will eliminate opportunities for ecological restoration goals for the site or other passive uses to be realized.

Summary:

This option is not recommended. While it preserves the full extent of the historic landscape, does not offer flexibility for the site to adjust to ecological conditions that might better support a healthy community.

Analysis of Site Boundary Options



Site Boundary Option C

Preservation of all tailings directly within the immediate viewshed of the dredge structure, pond and existing trails; partial preservation defined for tailings within the extended viewshed of the dredge structure, pond and existing trails

Consequences:

28% of historic landscape would be preserved; 40% of historic landscape would be preserved with the exception of limited negotiated intervention to fulfill on creek restoration objectives; 90% of creek would be available for some degree of ecological restoration (i.e. conservative restoration possibilities adjacent to preserved tailings; full restoration possibilities west of preservation boundaries).

The majority of tailings visible from existing and proposed dredge access paths would be preserved to support interpretation of industrial operations.

The creek corridor would be available for future restoration efforts, the extent of which depends on proximity to the site's primary interpretive activities.

Summary:

This option is recommended. It balances the desire to preserve critical historic and interpretive features of the site while identifying a strategy for integrating possible creek corridor restoration in the future.

Analysis of Site Boundary Options, continued

The historic landscape consists of a dredge structure, its manufactured pond, and a significant extent of tailings. These industrial remnants are tightly bordered to the north by the narrow French Creek corridor. The site is frequently used by the public for its interpretive experiences and for its access to other recreational opportunities of the region. The following observations compiled from design team site visits, outreach participants, and survey respondents capture site conditions to be addressed in its development.

Site access

- Visitors to the area speed along French Gulch Road; this could cause conflict with pedestrian crossing at the Reiling Dredge parking lot
- The Reiling Dredge parking lot is not adequately signed from the road
- The Reiling Dredge parking lot does not accommodate a large volume of cars; overflow visitors park along French Gulch Road

Program and interpretive elements

- Existing interpretive signs may need to be larger to provide comprehensive information
- Interpretive signage does not accommodate many of the stories that have piqued the curiosity of visitors to the site.
- Surface archaeology and the historic structure should be protected

The primary program of the site is access to and interpretation of the Dredge boat, surface archaeology, and tailings. Secondary programs are primarily recreational in nature and include:

- Access to recreational trails
- Hiking
- Mountain biking
- Cross country skiing
- Dog walking

Circulation and directional signage

- Subtle signage is preferred for the site's liminal frontcountry-backcountry location
- Improvement of ADA access could expand visitor base
- Existing circulation to the Dredge pond follows a historic road
- Alternate opportunities (beyond the existing overlooks) for exploring the industrial landscape are limited.

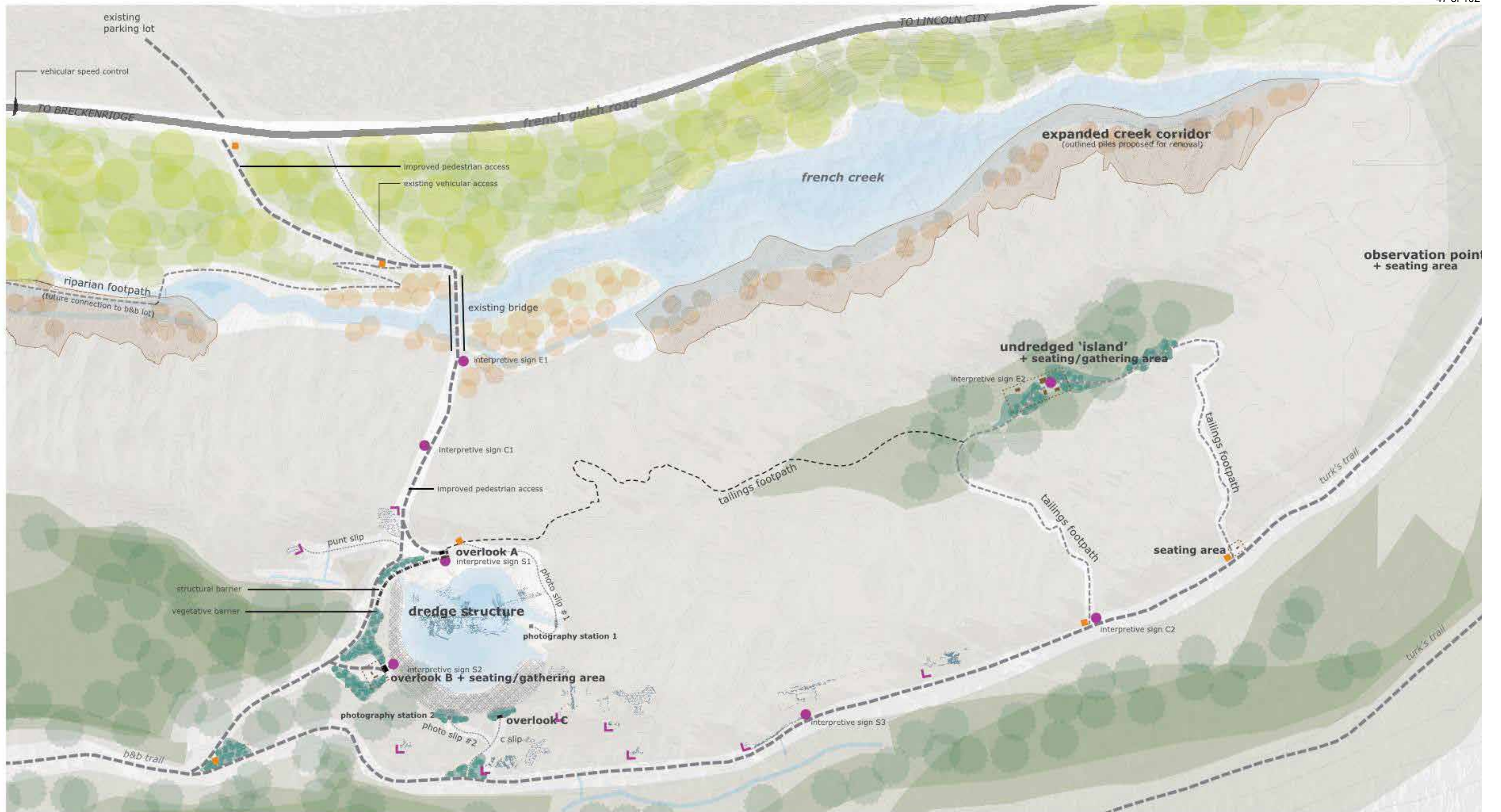
Materials and construction

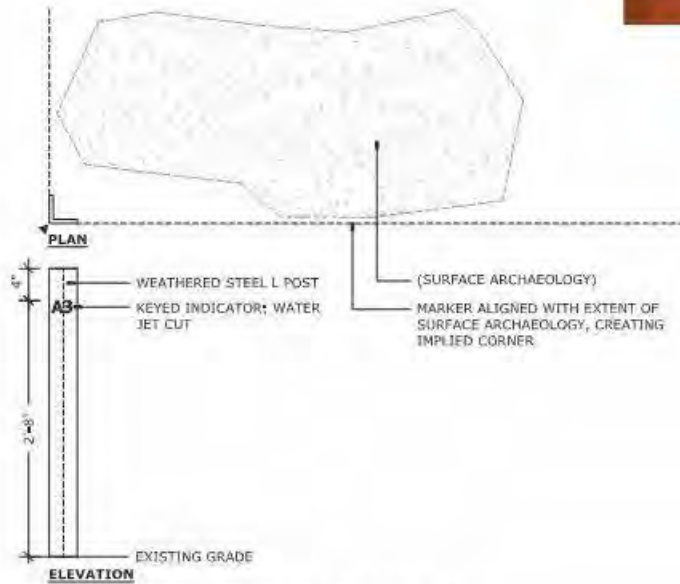
- Thick barriers and prominent overlook constructions create obstruction to views of the site
- Visitors breach the existing barriers for access to the pond and Dredge structure
- Barriers are utilized as informal seating in some locations
- Path materials are light on the land and appropriate to context
- Simple, rustic construction styles complement character of site
- Cohesive elements could link this site to others in the Golden Horseshoe
- The site lacks seating, trash cans, restrooms and other park-like amenities

The plan for the Reiling Dredge site begins with a vision of French Gulch as a historic 'park' - not a string of historic 'stations' or 'sites', rather, a landscape with cultural and social overlays woven together through incorporation of enriching elements that are both cohesive and catalytic.

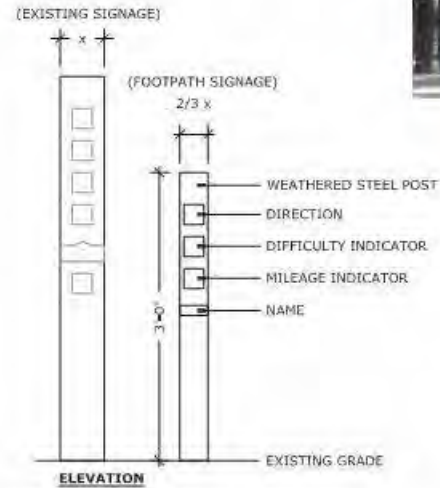
The master plan recognizes that the history of mineral excavation in the region has generated profound disturbance to the landscape around Breckenridge, specifically at the site of the Reiling Dredge, where dredging operations overturned the existing creek bed and adjacent land in its search for wealth. The industrial footprint of the dredge structure, pond and tailings combined with the remnants of support structures illustrate the story of this impact.

The design intent of the plan is to approach interventions to the site with a lightness and subtlety that allows the historic fabric to be read with minimal disruption. Spaces for contemplation, recreation and restoration concealed within the historic site are incorporated without disruption to the interpretive fabric. The primary (north-south) circulation trail and connections follow existing paths, while secondary circulatory loops expand upon this trail, providing subtle opportunities to experience the site from multiple perspectives. Proposed materials and construction methods comprising these paths, as well as overlooks, barriers, seating elements and other amenities echo the historic materials without replicating, allowing them to recede into the setting. Interventions are cohesive and simple, with a layering that allows visitors with varying agendas to be woven together in the fabric of a historic public park spanning the French Gulch.





3 SURFACE ARCHAEOLOGY MARKER
RD



2 DIRECTIONAL SIGNAGE
RD

Proposed Markers and Signage: Untreated steel weathers to a mellow appearance; solid directional posts call attention to their immediate context, while inverse annotation on the marker frames the landscape beyond.

To enhance authentic experience of the Dredge structure, reconfiguration of the existing overlooks is proposed:

Overlook A, north of the pond, would be slightly reduced in its scale relative to the existing overlook and would be moved to the west to provide an accessible landing.

Overlook B, west of the pond, would be increased in scale relative to the existing overlook and would include a seating area to accommodate larger visitor groups.

Overlook C, south of the pond, would be recessed from the bank of the pond and would be reduced in scale relative to the existing overlook, providing an individual experience removed from the viewshed of the other overlooks.

A few informal photography locations are proposed to provide momentary interpretive experiences.

Removal of large vegetation and incorporation of additional barrier would need to be undertaken to provide access to key views from all overlooks.

Interpretive programming associated with the Dredge should provide insight into the broad theme of the destructive nature of extractive mining attitudes, threaded through various topics:

Contextual:

1. Regional and national significance: How did this site fit into the history of the area and of the Gulch? Why is this site a unique national resource?
2. Economic Impact: What is the historic extent of dredging impacts throughout Breckenridge? What was the historic extent of Reiling Dredge impact? How much gold (volume and value) was extracted by the Dredge here? Provide statistics of Reiling Dredge production related to regional production.

Site-focused:

1. Functional: How did this dredge operate? Why is the structure in a pond and not in a river? Why are operations such as this not employed today?
2. Interpretation of remnants: How did the Reiling Dredge come into existence? What is visible today? Provide photos relating the historic structure to the existing structure/
3. Community and lore: What was life as a dredge miner like? How many men worked on a crew? How much were workers compensated? Was it dangerous to work on a dredge?

Ecological:

1. Existing character: How did dredging impact the course of the creek? Are the tailings toxic? Is the water contaminated?
2. Pre-industrial character: Why did the area look like before it was dredged? Why was the 'island' not dredged? What were the parameters by which the Dredge operated? If no action were taken, how long would it take the area to resemble its pre-industrial character?

In pulling apart the signage system to include components off the Dredge structure loop itself, the site proposes to engage visitors in progressive discovery. Interpretive signage would be located where the context would breathe life into the stories it seeks to reveal.

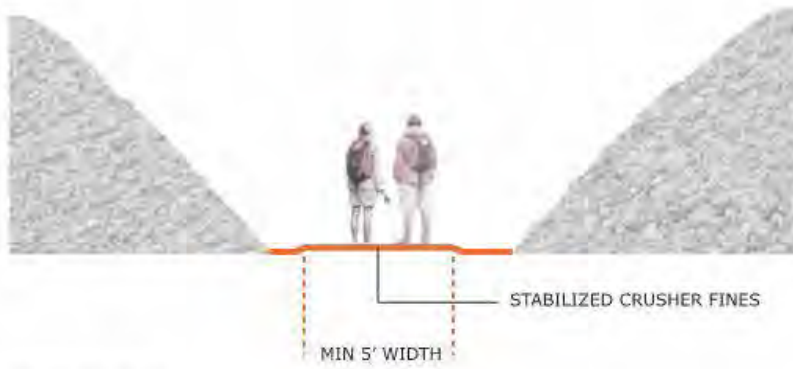
A few seating clusters would be incorporated along the primary trail, to allow visitors space to gather and rest that is not in conflict with recreational use of these routes. Development of additional exploration and relaxation opportunities, separated from the primary historic focus by screening and careful siting, would allow the site to balance the historic program with recreational and ecological objectives.

Circulation through the dredge piles and subtle development of the undredged 'island' would allow visitors to expand their understanding of the historic site, by enhancing their perception of the scale of operations and by offering an opportunity to experience a remnant of the pre-industrial character. The island could also serve as a space where social activities, stretching, resting, etc. would be able to occur physically and visually removed from the sensitive historic elements of the site. It could also accommodate additional opportunities for child-centric interpretive features, such as scale models (of a dredge bucket for example).

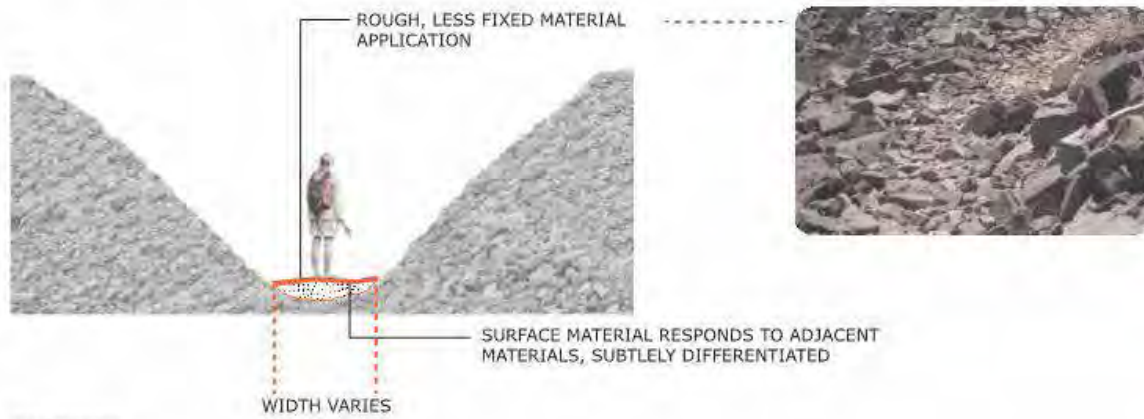
Future removal of selected dredge piles along French Creek and the meandering creek within a portion of the remaining piles would allow the stream corridor and its habitat a more generous footprint and a more gracious slope. These changes would improve the management of spring sediment loads and foster broader colonization of vegetation, which could in turn become a corridor for the passage of wildlife. This corridor could also allow visitors access to a revitalized stream and an alternate connection to existing trails.



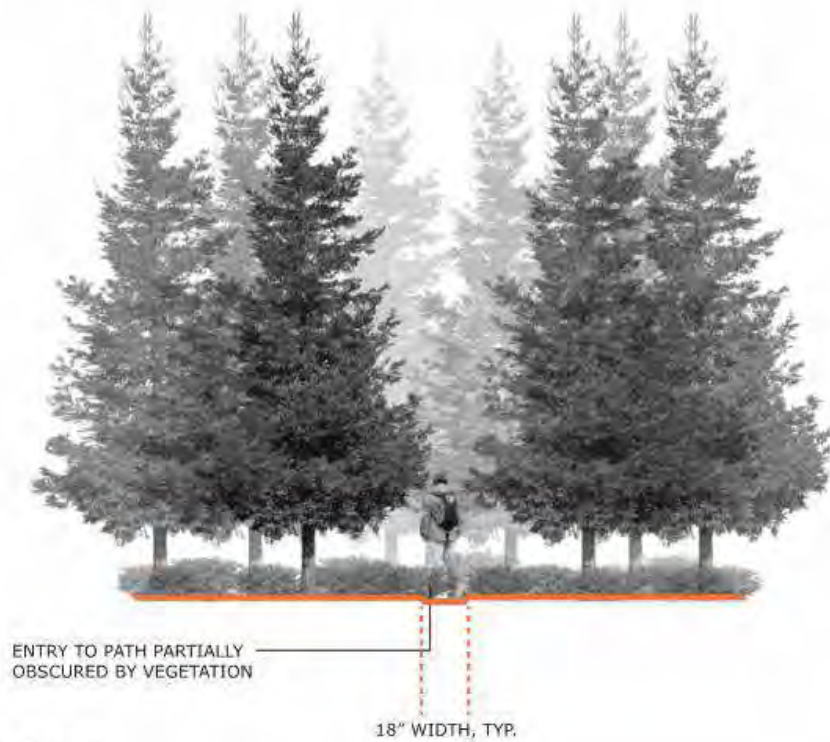
Visualization of Island Observation Area



PRIMARY TRAIL



FOOTPATH



SLIP PATH

Path Typologies

Three types of proposed trails would provide connection within the site and to the existing circulation system of French Gulch. These trails would be differentiated by width and material:

Primary trail indicates a path that would be well connected and readily accessible. The trail should be a minimum of 36" wide, surfaced with a crusher fine material slightly darker in tone than the dredge pile material, and compacted to a surface that is firm and stable.

Footpath indicates a path that would be relatively narrow, that would cross rugged or difficult terrain and would link back to a primary trail. Width and surface of a footpath may vary, but should respond to the slope and character of its adjacent terrain. Signage should indicate that the terrain may be difficult through all or part of the path.

Slip path indicates a short 'in and out' path, which would offer a solitary experience of a key view or interpretive opportunity. This path should be no more than 18" wide, surfaced with crusher fine material slightly darker in tone than the dredge pile material and compacted to a surface that is firm and stable. The slip path should not be signed and should be partially screened with vegetation to foster a sense of discovery.

Signage for primary trails and footpaths should be clearly visible at the trailhead and at major trail connections and should include information on the following:

- length of the trail segment
- surface type
- width
- typical and maximum slopes

The primary trail to the Reiling Dredge structure is proposed to remain in the current location of the Reiling Dredge Trail. The slope of the access path leading from the parking area to the closest edge of the dredge pond could be adjusted to meet ADA access requirements. Regrading and resurfacing would need to be performed, particularly at its juncture with French Gulch Road. The crossing between parking lot and trailhead should be addressed with the incorporation of a speed depression in advance of the parking drive to maintain lower vehicular speeds at this intersection.



Visualization of Tailings Footpath

It is important for the site to be developed in a way that preserves its 'distinctive materials, features, spaces, and spatial relationships' in order to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Per the rehabilitation guidelines, proposed materials and constructions should be differentiated from, yet compatible with the existing historic fabric. Proposed construction associated with this program should be undertaken such that 'if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.'

Features

The crossing of French Gulch Road from the nearest parking lot into the site should at a minimum be signed to indicate pedestrian activity. Regional signage could be developed to translate the language of the trailhead signage posts to subtle indications of parking, trailheads, and pedestrian activity along vehicular access routes. Development should also consider incorporation of speed calming devices along French Gulch Road.

While their rustic construction reflects the vernacular of the west, existing barriers form a major visual obstruction to the authentic experience of site. Replacement of these barriers by a proposed construction of untreated steel posts and cable would allow the necessary protections to recede from the interpretive experience and visual enjoyment of the site. These structural barriers could be supplemented with and even replaced where reasonable by vegetative barriers.

Resituating and scaling the existing overlooks as proposed in a previous section of this document and applying the barriers described above would enable a hierarchy and variety of experiences without the strong reciprocal visual obstruction that currently encroaches on these features.

Cues

Interpretive signage is currently located on the site in two locations, the first approximately halfway between the bridge and dredge structure, and the second at the northern side of the dredge. The construction of these signs is appropriate in scale and material to the context, and the style of signage should be maintained for regional coherence. The photos are difficult to interpret and may require enlargement for adequate interpretation. Rather than increasing the quantity of signs in a particular location, signs should be enlarged from 10"x12" to 12"x18" as needed to address this issue. Signage should also be offset from the center of the viewing area to allow for fuller views of the subject. In areas providing ADA access, signage should begin 30" above grade. Educating people about the fragility of the site features may deter disturbance; to this end, a message asking people not to disturb historic elements of the site should be included on each proposed interpretive signage element.

Directional signage is currently located on the site at the Reiling Dredge Trailhead and at the Reiling Dredge/B&B/Turk's Trail juncture. This signage consists of square painted metal symbols that are attached to a (approximately 6"x6") wooden signpost. This style should be maintained for regional coherence. At footpaths, this signage should be adapted to a 4"x4" scale to mark connection and its symbology should indicate the potential ruggedness of footpath terrain.

Proposed surface archaeology markers are 'corners' constructed from raw steel, mounted at least 18" from the trail and extending at least 36" in height, with a keyed reference that indicates type of artifact and numbering so that additional information could be sought by a visitor either from a physical map or app system. These references should be cut out of the steel so that the outline of the keyed reference would be apparent. Where a pit artifact poses a safety risk, a framed 1x1 steel grate should be anchored into the ground over the artifact. Where damage to the artifact owing to a lack of visibility is of particular concern, three rows of steel cable, spaced 10" apart, may be added as a deterrent and partially screened with low vegetation.

Amenities

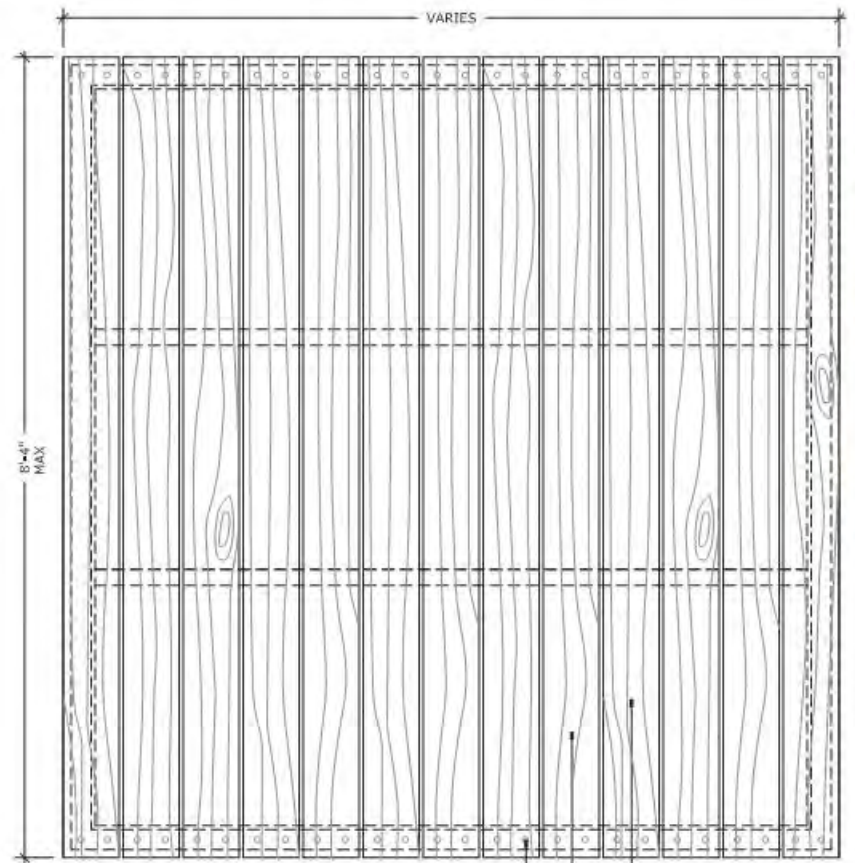
Proposed seating elements are provided in select locations within the frontcountry-backcountry transition zone, which is bordered by French Creek to the north, Turk's trail to the south, the Reiling Dredge Trail to the west and end of the primary extent of dredge tailings to the East. Seating elements incorporated into the undredged island would be simple platforms, roughly 4'x6' in surface area, to accommodate seating, reclining, picnicking, etc. A canopy element could be added to these elements as desired, to provide protection from inclement weather. Where seating elements are proposed along a primary trail, these elements should be reduced in scale from 4'x6' to 2'x4'. All seating is to be constructed from thick timbers, with minimal untreated steel support structure below. The wood should be finished in a grayed hue, contrasting with the timbers of the dredge structure in order to differentiate their origin.

Resource intensive elements conflict with the frontcountry-backcountry transitional nature of the site. Therefore, restrooms and trash cans are not recommended for the site; management and advertising of the area should enforce a pack-it-out policy. If a doggy pot is deemed necessary, this amenity should be located in the parking area, where it is convenient for both visitors and maintenance crew.

Vegetation

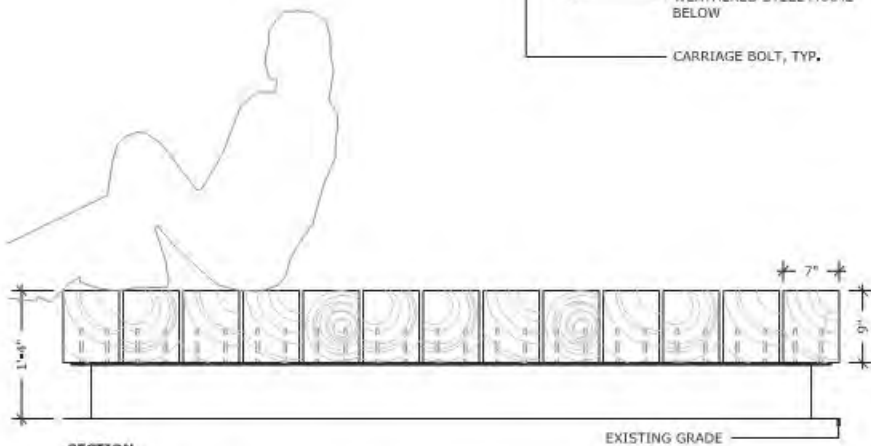
Planting should be added only in select locations to support a need for screening, stabilization, or barrier. Plants employed should be native, should respond to the character of the site, and could be expected to include conifers, aspen, juniper, willow, various deciduous shrubs, and grasses. Proposed vegetation is to be integrated only into parts of the site not occupied by surface archaeology; carefully located planting is intended to protect these sensitive site features, not compete with them.

At the overlooks situated around the dredge pond, existing vegetation should be thinned as needed to allow visual and photographic access to the structure. In the interpretive area within the undredged island, existing vegetation should be thinned and composed to provide space for circulation within the existing forest but maintained in locations that provide screening from primary trails.



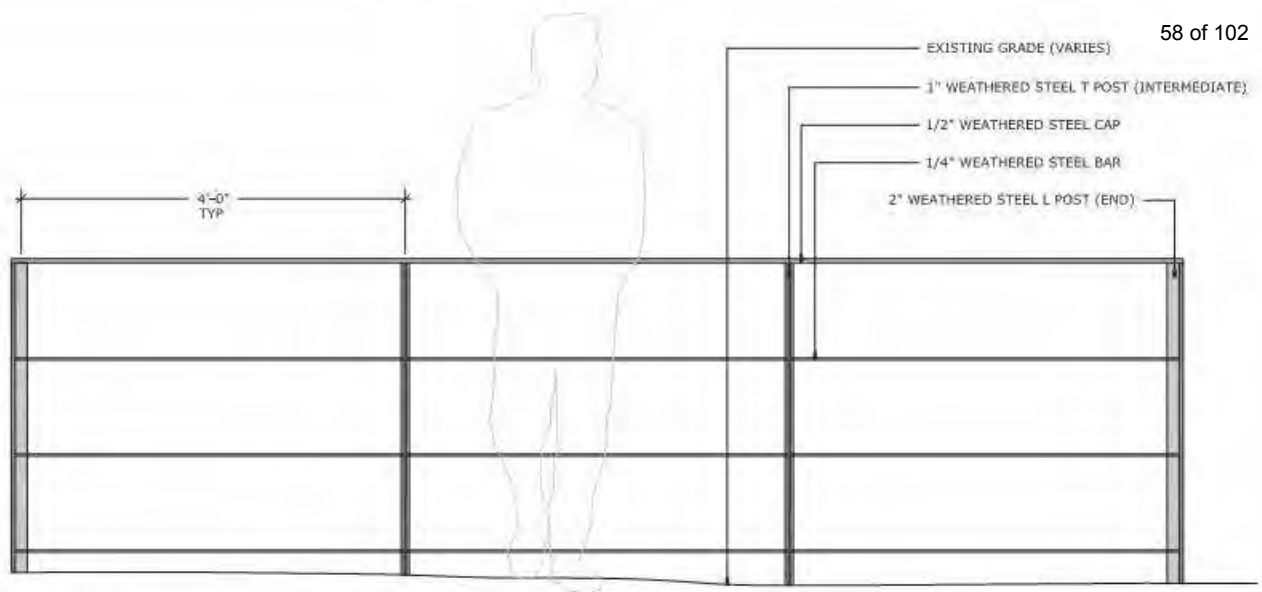
PLAN

- RECLAIMED TIMBER
- WEATHERED STEEL FRAME BELOW
- CARRIAGE BOLT, TYP.



 **TIMBER SEATING PLATFORM**

Proposed Seating Platform: A greyed finish distinguishes the seating platform from the beams of the historic dredge structure

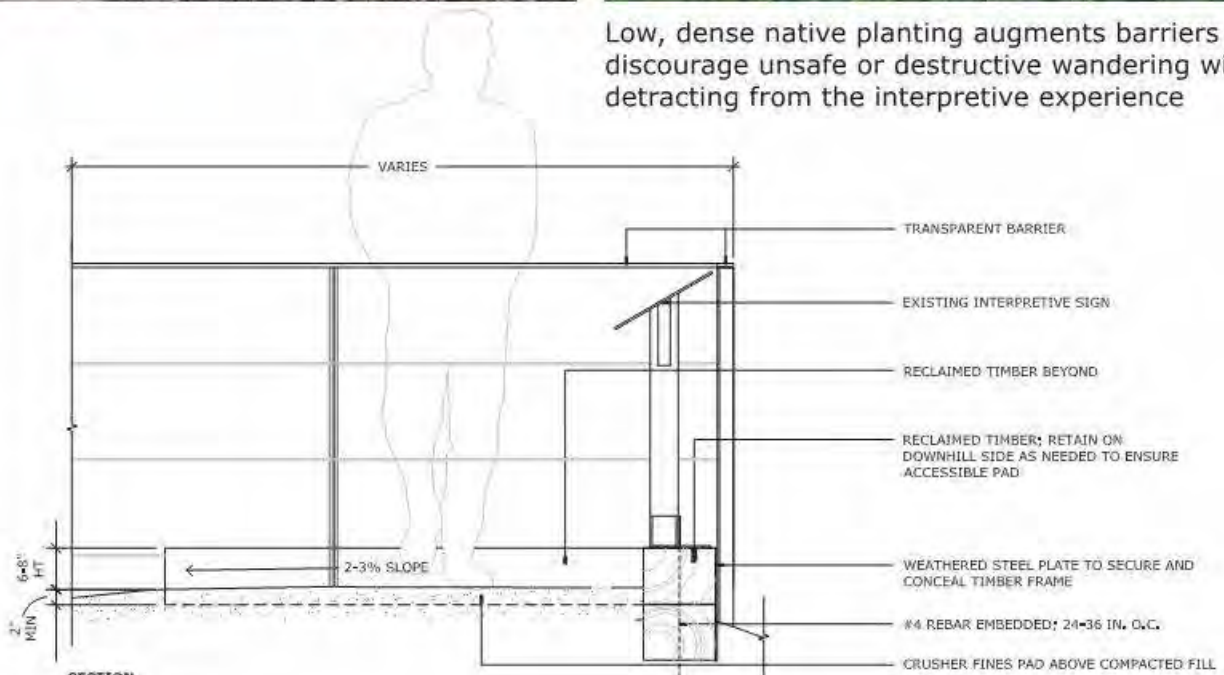


ELEVATION

TRANSPARENT BARRIER



Low, dense native planting augments barriers to discourage unsafe or destructive wandering without detracting from the interpretive experience



SECTION

OVERLOOK

Proposed Barrier and Overlook: Thinner barriers maximize the interpretive experience

This master plan document integrates existing information and community feedback to provide development recommendations and design guidelines for the Reiling Dredge site. The following actions are recommended 'next steps' in the process.

1. Acquisition of additional survey information for the historic site to supplement the Western Mapping 'Topographic and Planimetric Map' from 2008.
2. Research, including EPA consultation, into any potential environmental health concerns related to the restoration of the stream.
3. Preparation of stream morphology studies and a stream restoration master plan pending response to Action Item #2.
4. Structural study of the bank around the dredge to determine stabilization requirements
5. Research, including EPA consultation, into any potential environmental health concerns related to the provision of circulation through the tailing piles.
6. Pursuit of historic designation.
7. Structural preservation of the dredge structure and pond bank.
8. Assessment of public support for / prioritization of master plan elements (such as restoration of the creek corridor and rovision of additional recreational amenities within the undredged 'island'.
9. Detailed design to more precisely locate/price/phase future trail locations and other elements of the master plan supported in Action Item #8.
10. Explore opportunities for smartphone-driven tours to enhance the interpretive experience of the site.



Visualizations of a Revitalized Creek Corridor

7



POTENTIAL NATIONAL REGISTER NOMINATION

As part of the long-term preservation strategy for the dredge and the dredge site, a National Register nomination is being considered. The Office of Archaeology and Historic Preservation has indicated that the dredge may be nationally significant and that the National Park Service should be engaged in a formal conversation regarding National Historic Landmark status, given the unique nature of the dredge and the extent of intact context surrounding the dredge.

The boundaries for a potential nomination have been a source of much discussion. The site was acquired with plans not only for preservation of the dredge but also for stream restoration and public recreation.

Three basic options for a National Register boundary have been identified:

OPTION 01: LIMITED SITE AREA

This nomination boundary includes only the dredge and pond and the immediate site around the pond. The nomination would include a limited number of dredge piles to provide some site context.

Considerations:

This boundary may limit the area subject to section 106 review which would potentially allow more flexibility toward stream restoration. In addition, this boundary may allow for extraction of a number of the dredge piles for use as gravel or aggregate. However, the area of potential effect for this undertaking may be considered to be the entire site, and as such the whole area would still be subject to Section 106 review.

This option may compromise the dredge site and result in loss of historic context. Given the unique nature of the dredge piles, it is desirable to retain them for context and to demonstrate the environmental impact of dredging activities.

OPTION 02: RETAIN VIEWSHED AND SOME SITE CONTEXT

This boundary includes the area identified in option 01 as well as the dredge piles to the east, following the loop where the dredge turned around, and approximately 500 feet to the west to retain the viewshed from the dredge as well as the historic character of the site.

Considerations:

This boundary would allow for retention of the viewshed from the dredge. The trail to the dredge would provide site context and demonstrate the dredging activities. Consultation with the National Park Service should occur to determine if this boundary would be adequate to maintain eligibility for National Historic Landmark status. Attaining national landmark status could increase heritage tourism in the area and would bring greater awareness and recognition of the site.

OPTION 03: RETAIN DREDGE, DREDGE POND, AND ALL TAILINGS PILES

This option, which has been proposed by the Office of Archaeology and Historic Preservation includes a broader site context than options 01 and 02. This boundary would maximize the potential for a national landmark designation and may pave the way for the entire valley to become a historic district.

Considerations:

This boundary has the highest likelihood of attaining National Historic Landmark designation for the site, greater attention to the dredge from a preservation perspective, and recognition of the importance of the larger context of the site.

This boundary includes a larger site area and therefore, ensures that a greater area would be subject to Section 106 and other review processes. These review processes may result in limited ability to complete stream restoration and recreational activity improvements. In addition, the extraction of the dredge piles for use as gravel or aggregate would likely be unacceptable, as that would compromise the site context.

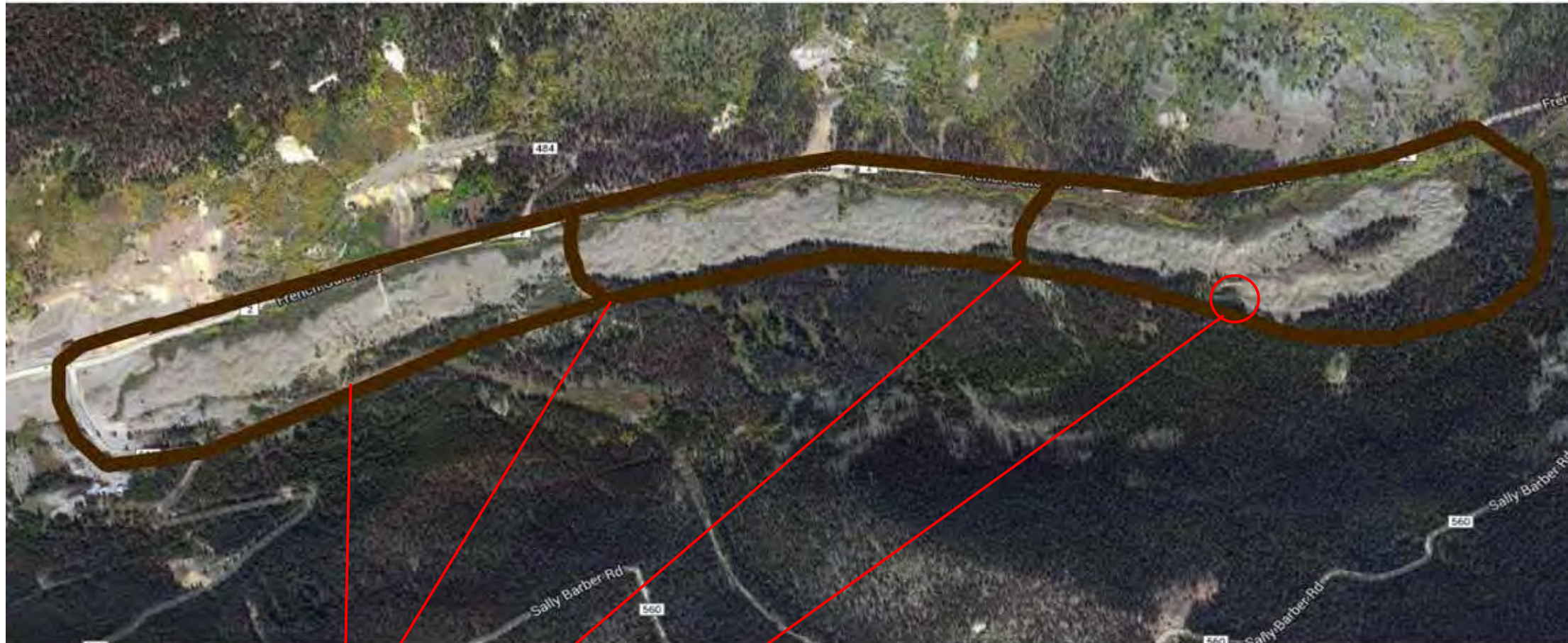
It is important to note that as the dredge has already been deemed eligible for National Register listing, any work on the site which includes federal funding is Subject to Section 106 consultation.

RECOMMENDATIONS:

In the interest of establishing a balance between preservation of the dredge, recreational activities, and future stream restoration, Option 02 or a derivative thereof is the best strategy. In the spirit of the property acquisition, these three interests must be balanced. At this time, the degree to which National Historic Landmark status would be compromised by excluding the western-most dredge piles from the nomination is unknown. Interpretation of the site area would work well with recreational use goals for the site and could work with a stream restoration project. A site boundary of this nature would also allow some of the tailing piles to be sold for use as gravel or aggregate, potentially producing income which could be used to fund other activities on the site.

Work should begin on a National Register Nomination. This work should be completed in coordination with the National Park Service. As this process proceeds, an eventual goal of applying for and attaining National Historic Landmark status should be considered.

REILING DREDGE - AERIAL PHOTO



OAHP Recommended Boundary

Alternate Boundary

Minimum Boundary

Immediate Dredge Site

NATIONAL REGISTER BOUNDARY CONSIDERATIONS:

- SIGNIFICANCE OF RESOURCE
- INTEGRITY OF RESOURCE
- AUTHENTICITY OF CONTEXT
- VIEWSHED
- HERITAGE TOURISM POTENTIAL
- NATIONAL HISTORIC LANDMARK ELIGIBILITY
- USE OF SITE
- GRAVEL EXTRACTION POTENTIAL
- BALANCE OF STREAM RESTORATION, RECREATION, AND HERITAGE TOURISM
- CONTEXT OF ENTIRE VALLEY

SITE CONTEXT

Stetson Paul | Bluegreen | Anthony and Associates

COMMUNITY OUTREACH

Reiling Dredge Preservation Master Plan

November 21, 2013

8



SUMMARY

[EXECUTIVE SUMMARY](#)

The Reiling Dredge is a unique historic resource. The Dredge and the site have already been identified as eligible for listing on the National Register of Historic Places and may be eligible for National Historic Landmark status. The site is relatively accessible and with upgrades and some re-configuration can be improved in such a manner that will allow additional visitors to access the site. Interpretation of site features and the Dredge itself are important to providing a full understanding of site's history.

Some preservation work will be required if the Dredge is to be retained. If no work is completed, the Dredge will continue to decay, eventually being reclaimed by nature. Varying levels of intervention are possible; these have various implications in terms of visual impact, cost, and effectiveness.

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REFERENCES

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Fountain, Bill & Mather, Sandra. *Chasing the Dream: The Search for Gold in French Gulch*. Breckenridge, Colorado. Breckenridge Heritage Alliance. 2012

Janin, Charles. *Gold Dredging in the United States*. Bureau of Mines Bulletin 127. Washington DC. Department of the Interior Government Printing Office. 1918.

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Twitty, Eric. *Lincoln Townsite Recordation and Significance Evaluation Mountain States Historical*. December 2010.

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APPENDIX

Event Summaries

Boards Presented at Public Outreach Meetings

Online Survey Comments

Drawings and Documentation of Current Condition of Dredge

National Register Boundary Information



Public Outreach Summary No. 01

DATE: August 14, 2013

PROJECT: Reiling Gold Dredge Preservation Master Plan

JOB NO.: 11333.000

PRESENT: Refer to Attached Sign-in Sheet

SUBJECT: Public Outreach Event Summary

On Wednesday, August 14, 2013 a public outreach event was held to discuss the history of and preservation strategies for the Reiling Gold Dredge. The first part of the event included a site visit and short hike to experience the Dredge and related artifacts in situ. As part of the hike, Bill Fountain and Rick Hague presented the history and function of the Reiling Dredge as well as an overall history of area mining history. The second part of the event was a public open house, held at the Breckenridge Town Hall. The goal of the project team was to engage in an open dialogue regarding the main goals of the project.

1. Goals for the project include:
 - a. Establish a strategy for preservation and stabilization of the Dredge.
 - b. Establish a strategy for preservation of the unique cultural landscape associated with the Dredge.
 - c. Establish a strategy to tell the story of the Dredge.
 - d. Balance protection of the site with ecological concerns

2. How close should people be able to get to the Dredge?
 - a. View interruptions should be avoided as much as possible, particularly from the viewing platforms. The Dredge is a site which many people desire to photograph; eliminating view interruptions will discourage people from trying to get closer to obtain a better photograph.
 - b. Removing a few trees may be acceptable if that will promote visitor safety by discouraging people from leaving the path to obtain a better view of the Dredge. However, removal of trees should be balanced with the desire to view the Dredge in a natural setting.
 - c. Creating barriers is likely to be one of the biggest challenges to interpretation of the site. The barriers need to keep people away from the artifacts (including the Dredge) while retaining the natural landscape. At other sites, education and signage has proved effective at keeping people at a distance.
 - d. Public safety needs to be considered. The pond has mercury contamination; people should be aware of this to protect themselves and their domestic animals that may be on the trail with them. The water surrounding the dredge creates a "moat" which will help to protect the dredge.
 - e. The embankments around the dredge pond may be unstable in areas. Stabilization would be desired if the trail were closer to the top of the embankments.
 - f. The existing barriers are relatively temporary. When they were constructed, it was anticipated that they would be replaced eventually.

3. How should the site be interpreted?
 - a. Opportunities should be taken to provide a variety of views of the Dredge, each with interpretive signage.
 - b. Plaques at the various viewing platforms may include historic photographs or drawings to better explain the context and ruins of the Dredge.
 - c. The surface archaeology around the Dredge should also be interpreted with signage or markers to call attention to various features. However, care should be taken to keep people away from the site features to avoid trampling them or otherwise disturbing them. The ruins of the

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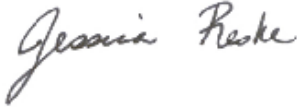
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- boardinghouse, repair shop, kitchen, boat, and support system for the dredge operations are of particular interest for interpretation.
- d. Attracting multi-generational families to the Dredge is desired and reasonable. Hands-on interpretative stations would likely attract young children to the site. These stations could provide working small-scale replicas of sections of the Dredge to illustrate the mechanics of the equipment.
 - e. A circular path around the pond with 3-6 interpretive stations is reasonable.
 - f. A picnic area would be desirable - this would provide an area for people to assemble for guided hikes and would encourage visitors to the trail to stay for lunch or socialization. This picnic area could be located in close proximity to the parking lot or an observation platform.
 - g. Informal seating areas may be desired to allow people to linger at the site and to provide places for breaks along a guided hike.
 - h. The necessity and feasibility of facilities such as restrooms and trash receptacles should be considered.
 - i. Questions such as “Why is the dredge the way it is?” and “What can you tell me about the dredge?” should be answered in the interpretation of the site.
 - j. Signage regarding past, present, and future mining operations could be effective in explaining how the dredge operated, what is currently visible today, and why operations such as this are not employed.
4. How does / could the Dredge site be tied in to the larger context of mining in the French Gulch area?
 - a. The entire area could be established as a historic park which would tie together the various mine sites and ruins.
 - b. A visitor center could be established at the entrance to the valley with digital images / computer simulations of the mining operations in the area.
 - c. The existing Breckenridge Welcome Center and Heritage Alliance Office could provide information pertaining to the mining history with maps for self- guided hikes in the area. This information could include information about the environment and ecosystem of the area as well as the history of mining operations.
 - d. A bus tour was offered in the past. This was not particularly successful; the Reiling Dredge and Lincoln City were the most popular stops on the tour.
 - e. Some local resistance from the Wellington neighborhood has been encountered when interpretation of the gulch has been discussed publicly in the past. Locals consider the Gulch a “private” recreational area which doesn’t see a lot of tourists.
 5. What are the pros and cons of existing site access? What would be desired for future site access?
 - a. ADA Access: ADA Access is desirable. Given the gentle slope to the lower viewing platform, ADA access is likely feasible at least to this platform. If the path is not officially ADA accessible, easy access to the lower platform is desired to support visits from multi-generational groups.
 - b. The size of the parking lot is reasonable for the trail. However, higher visibility for both the parking lot and trailhead along the road is desired. It is likely cost prohibitive to increase the parking area or relocate it to the Dredge trail side of the road.
 - c. Stair or ramp access to a boardwalk across the top of the Dredge piles may add interest to the hike. Alternatively, a stone path across the dredge piles would be attractive. If that strategy were employed, railings along the path may be necessary.
 - d. Currently, time spent at the site is estimated to be between 30 minutes and one hour. If the site were interpreted further, this time would likely increase.
 6. What is the significance of the Reiling Dredge?
 - a. The Reiling Dredge is a unique Dredge in Colorado. There is one other extant dredge in Colorado, which is completely different in both character and setting.
 - b. The dredge piles, local economic history, and story of mining in the area all work together to tell the story of the dredging operations.
 - c. The ingenuity of the technology is unique. The structure shows dedication and motivation to complete the task of extracting gold from the area.
 - d. The only other comparable examples of dredges are in Alaska and Canada. The Reiling Dredge is much more accessible and remains in a more authentic context than the other dredges. At the dredge in Alaska, the housing has been reconstructed.
 - e. The Reiling Dredge may be eligible not only for listing on the National Register of Historic Places, but also for eventual listing as a National Landmark. The boundaries of the area for designation will need to be established as the dredge piles and surface archaeology are related to the Dredge and considered significant. The impact of the Dredge should remain evident, and the dredge

Public Outreach Summary 01
Reiling Gold Dredge Preservation Master Plan

August 14, 2013
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Breckenridge Heritage Alliance
State Historical Fund
Project Team

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REILING DREDGE PUBLIC OUTREACH
8/14/2013

GUIDED HIKE PARTICIPANTS (* ATTENDED BOTH HIKE AND OPEN HOUSE)

Sandie Mather	BHA/SHS		
Roger and Alice Thweatt		thweattra@yahoo.com	
Sybil Turner		sybil@peteturne.net	
Beth and Neil Groundwater		beth07@bethgroundwater.com	547.1320
Karen Turner		kturner045@yahoo.com	453.2040
Alex Turner		apturner007@gmail.com	453.2040
Astrid Liverman*	Office of Archaeology and Preservation, History Colorado	astrid.liverman@state.co.us	
Anne McCleave*	State Historical Fund	anne.mccleave@state.co.us	
Joseph Martin		jm2255@gmail.com	
Stan Horvath		blueriver3_2000@yahoo.com	
Brian Larch	Summit County	brianl@co.summit.co.us	
Katie x*	Summit County		
Barbara Swider		baswider@yahoo.com	970.453.7742
Peter Grosshuesch*	Town of Breckenridge	peterg@breckgov.com	970.453.3162
Bill Moody			
Chuck Calderini	BHA	breckchunck@gmail.com	453.8446
Kneale Brownson*	BHA	knealeb@breckheritage.com	231.360.7831
Bill Fountain	(tour guide)	bigobill@aol.com	303.888.8426
Zach Elder	Kids Inc	zaelder@comcast.net	303.617.3541
Cindy Hintgen	BHA	cindyh@breckheritage.com	970.453.976x
Rick Hague	(tour guide)	rehague@aol.com	970.547.9262

OPEN HOUSE PARTICIPANTS (NIC HIKE PARTICIPANTS)

Philip Houghton		philh@co.summit.co.us	
Mark Trudy	Town of Breckenridge	markt@townofbreckenridge.com	
Heather Peterson	Office of Archaeology and Preservation, History Colorado	heather.peterson@state.co.us	303.866.4684
Leigh Girvin		leighgirvin@hotmail.com	970.453.8319
Maureen Nichols	SHS	maureensloann@gmail.com	453.2392

PRESERVATION MASTER PLAN

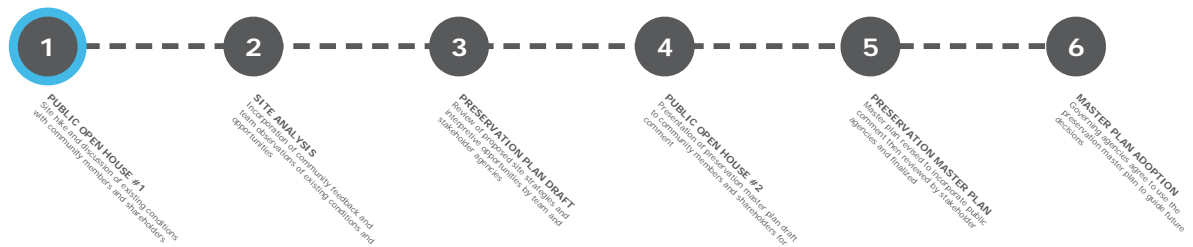
A Preservation Master Plan is a graphic framework for **preserving, protecting and interpreting the significant qualities** of a site. This plan offers themes, strategies and design recommendations to lend **vision and consistency** to future development efforts.

"The Reiling stands in its original context and possesses a special character defined by its environmental setting, architecture, economy, traditions, and most importantly, its history."

-Stewart Architecture

The preservation master plan for the dredge and the surrounding landscape will consider riparian restoration goals, recreational uses, educational and interpretive approaches, heritage tourism goals, and environmental impacts. The master plan will determine how best to preserve both the Reiling Dredge structure and the cultural landscape surrounding it while balancing the other uses and goals for the area.

PROCESS



PURPOSE

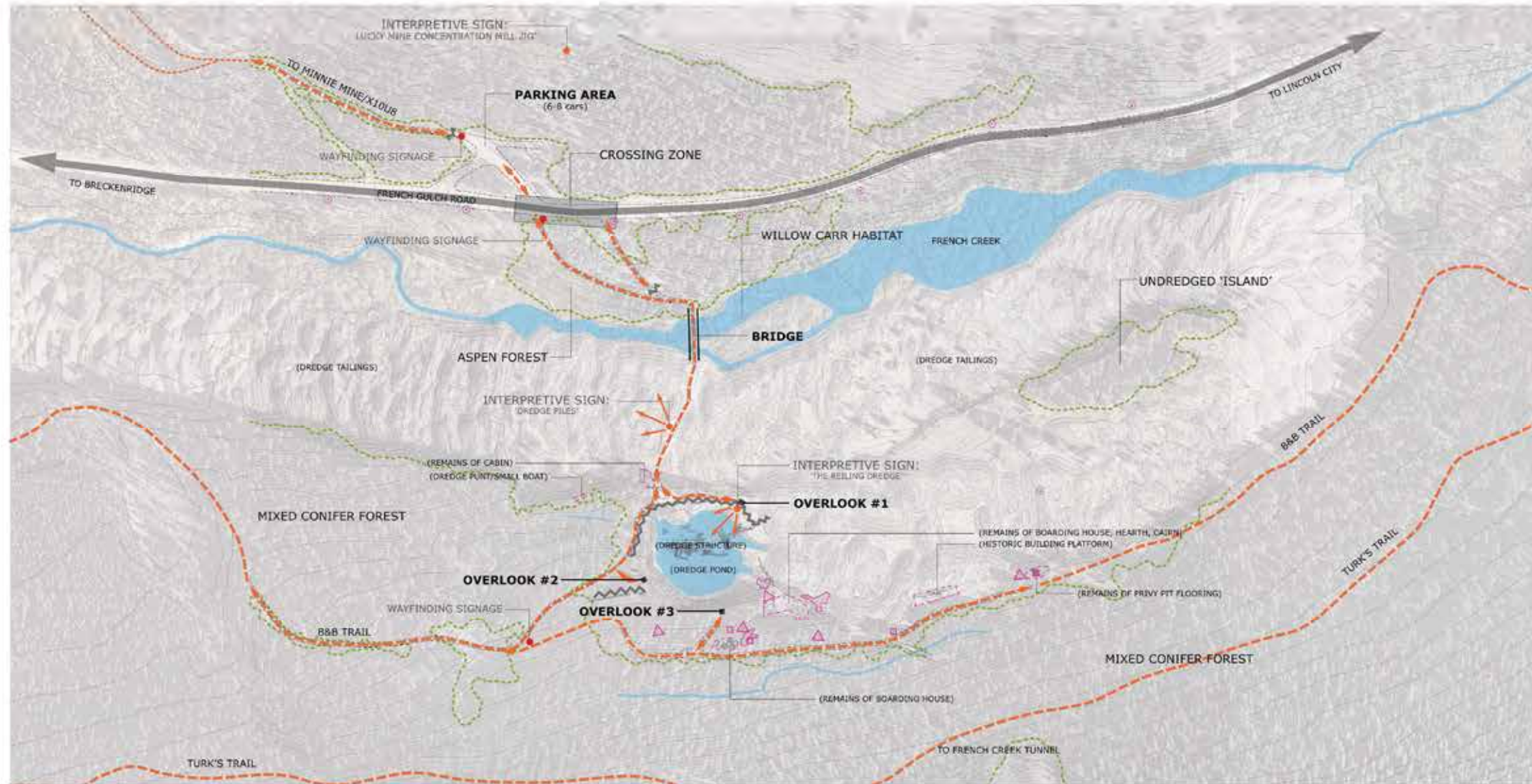
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Reiling Dredge Preservation Master Plan

August 14, 2013

REILING DREDGE EXISTING CONDITIONS



SITE PLAN

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Reiling Dredge Preservation Master Plan

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REILING DREDGE - HISTORICAL TIME LINE



TIMELINE

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Reiling Dredge Preservation Master Plan

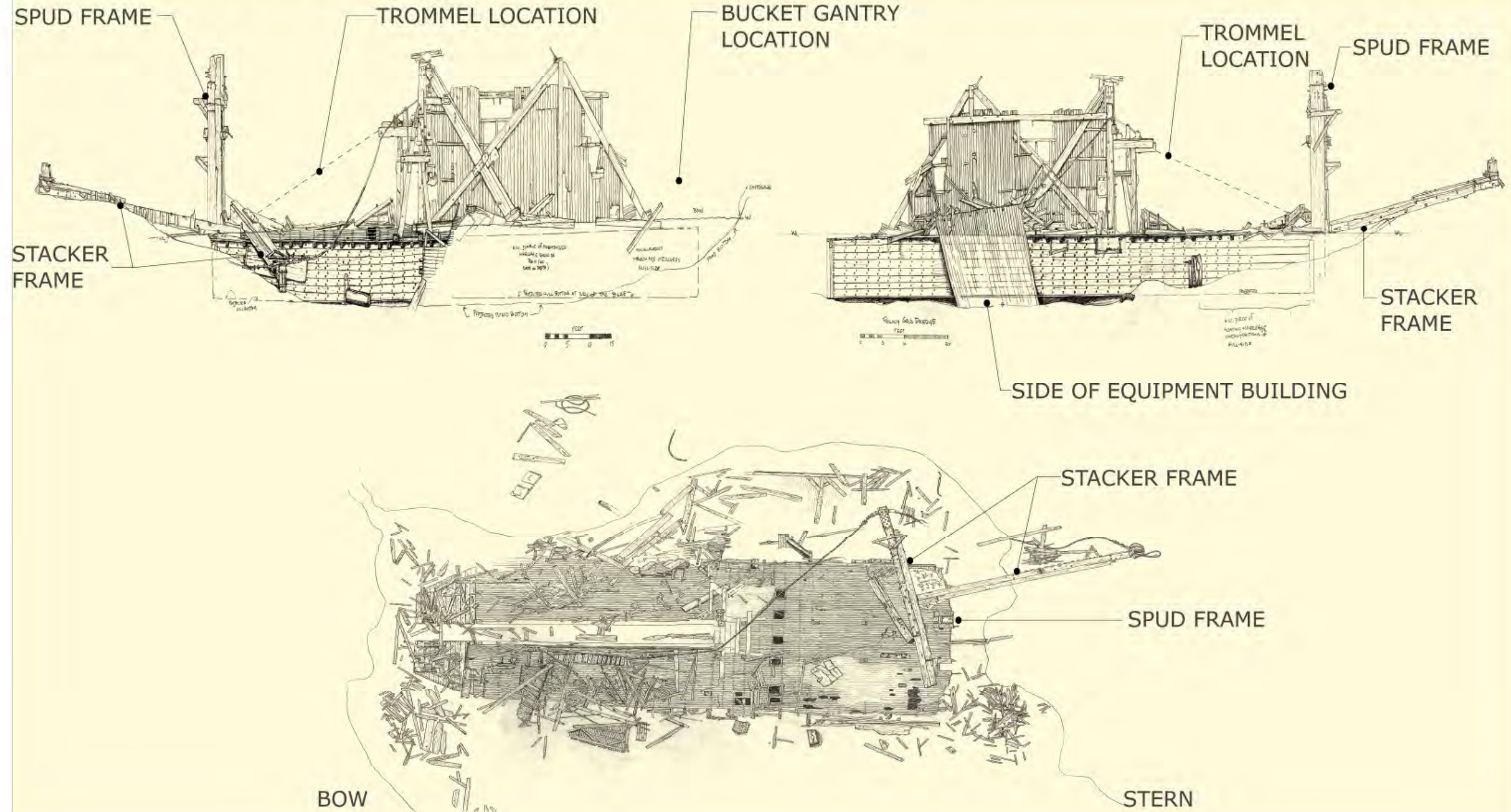
REILING DREDGE - SURFACE ARCHAEOLOGY



TOPOGRAPHICAL MAP

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REILING DREDGE EXISTING CONDITIONS



PLAN & ELEVATIONS

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August 2015

REILING DREDGE - AERIAL PHOTO



SITE CONTEXT

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Reiling Dredge Preservation Master Plan



Public Outreach Summary No. 02

DATE: November 21, 2013

PROJECT: Reiling Gold Dredge Preservation Master Plan

JOB NO.: 11333.000

PRESENT: Refer to Attached Sign-in Sheet

SUBJECT: Public Outreach Event Summary

On Thursday, November 21, 2013 a public outreach event was held to discuss preservation and interpretation strategies for the Reiling Gold Dredge and its site. The goal of the project team was to engage the public in an open dialogue regarding the project and to collect opinions and information pertaining to the various preservation and interpretation strategies and options. The following represents discussions and opinions shared at the Open House event:

1. Why this dredge?
 - a. The context of the Reiling Dredge is authentic, with extant dredge piles and pond.
 - b. The hull of the Reiling Dredge is intact and significant elements of the dredge's superstructure are present and standing.
 - c. The History Colorado Office of Archaeology and Historic Preservation has indicated that the Reiling Dredge may be the most intact dredge site in the continental United States
 - d. The relatively accessible location of the Dredge allows for a unique opportunity for interpretation in the United States.

2. National Register Boundaries:
 - a. What is the value of the dredge piles? Both the historic value and the current monetary value should be identified and considered.
 - b. What extent of the piles would it take to tell the story of the Dredge?
 - c. What extent of the site would need to be nominated for the site to be considered for National Landmark status?
 - d. If too small of an area is included in the nomination, it may limit National Landmark eligibility.
 - e. National Landmark status would be desirable due to the anticipated increase in heritage tourism.
 - f. Limiting the boundaries to closer to the pond itself may provide more opportunity for stream restoration.
 - g. The ambitions behind designation of the site should be examined as this could lead to identification of the appropriate boundary.
 - h. Perhaps designate a limited area and see what feedback is received from the National Register committee. At that time, determine if a limited area would still be eligible for listing as a National Landmark.

3. Implications of National Register / National Landmark listing:
 - a. There is concern that a local/state/national designation might put unnecessary burden on what can be achieved at the Dredge site in the future.
 - b. Restrictions would come from local listing or from funding sources, not from a National Register Designation.
 - c. Review processes would already be triggered by the site's eligibility as a National Register property even if it is never listed.
 - d. Listing on the National Register does not necessarily protect the property.
 - e. A conservative boundary would maintain future options for the site and should be well-represented among the site boundary options, just as the "do nothing" approach was represented among the options for the

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- Dredge itself. If we “over-reach” on the site boundaries, doors may be closed for future stream and habitat restoration.
- f. A larger area could be designated to better position for National Landmark eligibility. If / when the stream restoration is undertaken, a review would be required which may result in mitigation strategies before stream restoration work could commence. That does not necessarily mean that stream restoration would not be allowed, it would just be subject to review.
 - g. View sheds should be considered in establishing a National Register nomination boundary.
4. What is the best treatment strategy for the Dredge itself?
 - a. The strongest public interest appears to be a hybrid of Option 2 and Option 3 (refer to attached board for details of each treatment option).
 - b. If restoration is not achieved at least to Option 3, there won't be anything to look at.
 - c. The feasibility of raising the water level in the pond is unknown at this time. This will need to be determined if Option 2 is to be executed.
 - d. If partial reconstruction is undertaken, the amount to reconstruct without going overboard needs to be determined. Reconstructed sections of the Dredge need to look original or at least complement the historic character of the Dredge.
 - e. A dollar amount (or an approximate dollar amount) needs to be identified for each option.
 - f. The community discussion has ranged from “let it rot” to stabilization to restoration within reason. Approximately 25% seem to have a “let it go” opinion; approximately 75% would like to see the Dredge stabilized or partially restored.
 - g. Stabilization of the Dredge following the Secretary of the Interior’s Standards would be appropriate. In order to stabilize the Dredge, partial reconstruction of key structural elements may be required.
 - h. An understanding of the appearance of the Dredge will be required before a decision can be made regarding which option is preferable.
 - i. Preservation of the Dredge structure and the “essence” of the piles is preferable over restoration.
 5. Site interpretation:
 - a. Less is more – avoid installing too many signs and site features.
 - b. Phone apps may be effective tools for site interpretation. A phone app would be preferable to extensive signage or an electronic tour system.
 - c. The history of mining and hydrology is of interest and should be shared as part of the site interpretation.
 - d. At least some dredge piles should be retained for context.
 - e. The negative impact of the Dredge’s operation in the valley should be interpreted – one opinion is to preserve the Dredge and its dredge piles in order to learn from tangible history, another opinion is that the dredge’s destruction should be documented and fixed in order to provide an example of how to fix previous mistakes.
 - f. Multi-generational use of the site should be anticipated.
 - g. Lighter barriers between the trail and the dredge pond are good. More rails may be desirable toward the bottom of the barrier to protect small children.
 - h. Signage will not be effective in stopping trespassing on the dredge site; beefier barriers may be required.
 - i. “What you can see from the Dredge is bad enough that it should be preserved for enlightenment.”
 - j. Tell the story of the Dredge and the lives of the miners. Relate the story to the history of Breckenridge.
 6. What are potential funding sources for future work on the Dredge and surrounding site?
 - a. There is concern about public expenditure for this project. Greater support for efforts on the site may be realized if private funds or grant funds are used.
 - b. Grant opportunities are available including the State Historical Fund
 - c. Cash match will be required for most grants.
 - d. Some grant funding is dependent on the historic status of the site (local, state, or national registration).
 - e. Some funding sources, such as the State Historical Fund would require a covenant or easement on the property depending on the amount of grant funding given to the project. The full implications of this would need to be understood, especially in regard to the potential for future stream restoration.
 7. Community Education
 - a. Some community members who have expressed opinions may not fully realize the historic significance of the Dredge and its site.
 - b. An online opportunity to download the presentation boards and give feedback is desired.

- c. Options for the site and the Dredge should be shared with the community in order to aid in understanding the process and the potential future of the site.
 - d. A newspaper article sharing the process to date, history of the Dredge, and potential future of the site would be helpful.
 - e. The master plan should be made available for public comment.
 - f. A forum for anonymous comments would be desired – the online opportunity for comment required creation of an account and log-in.
 - g. Funding options for future work at the site should be shared with the public.
 - h. Implications of a National Register or National Landmark status should be shared with the public.
 - i. Pond contamination should be addressed as it is an area of public concern. These issues have been discussed with the local Regional EPA and potentially resolved. However, that is not widely known and should be confirmed.
8. Timeframe:
- a. A National Register nomination is a process that takes several months; a National Landmark application would likely take a few years.
 - b. Stream restoration in the valley is not a current priority and is likely a number of years down the road.
 - c. National Register nomination and stream restoration will not be ready to move forward simultaneously. Both could be accomplished on a long enough timeline.
 - d. Natural stream restoration would take an unknown period of time.
 - e. The Dredge itself will continue to deteriorate if no action is taken.
9. Potentially Conflicting Interests:
- a. Stream restoration versus National Register nomination. The National Forest Service would likely say that the whole stream should be restored. The OAHF would prefer to see the whole site listed on the National Register.
 - b. The site was purchased not only to preserve the Dredge but also to improve habitat value and complete the stream restoration. Addressing habitat and stream restoration may require moving some of the dredge piles. In the spirit of the purchase, the designated area of the site should be limited.
 - c. Current elected officials have differing opinions, some would like to see the stream restored; others place higher priority on establishing the site as a National Landmark.
 - d. Open Space use and History should co-exist at this site. Working toward a good compromise will be critical.
 - e. A balance between recreation, historic preservation, and habitat restoration and reclamation will need to be established in order for there to be a consensus regarding treatment of the Dredge and the site.
 - f. Habitat both in land and water will be important on the site. The dredge piles are not a good habitat for any species.
 - g. Cost, context, and conflicting opinions will need to be articulated in the Master Plan. The Master Plan needs to contemplate the future. If the Dredge will be preserved for 50 years, how long would the piles remain intact?
 - h. Community opinion on the mechanics of how the rock piles are extracted and disposed of may influence how much of the rock can be extracted from the site. Neighbors of the gulch and the dredge may resist operations which would have a large amount of truck traffic.
 - i. There is a desire to balance a meaningful restoration of the stream without harvesting all of the rock piles.
 - j. It is desirable to limit the number of restrictions placed upon the site to allow the various components of site work to be realized to the fullest extent possible. Fewer hurdles to more options is desired.
 - k. Is there a way to establish a “transitional zone” which would remain untouched? Varying levels of stream restoration could occur along the corridor, with some sections nearest the Dredge could potentially remain intact in this scenario.
 - l. Habitat improvement is desired as fish species threatened at a state level are present upstream in the area. For a functional stream corridor, some rock may need to be removed. Lack of habitat continuity could work, which would suggest a “transitional zone” or varying degrees of stream restoration. This would retain continuity without forcing a single treatment on the entire stream corridor.
10. Stream Restoration:
- a. A greater meander is necessary than the strict 100 foot offset from the centerline of the creek. Additional study will be required to determine what the optimal footprint and profile of the creek should be.

- b. EPA and contamination issues have already been addressed. Environmental liability is assumed to be acceptable within the community.
- c. The master plan for the Swan River could be consulted as a resource, though not as a blueprint for this project. A similar master plan study for the stream restoration would be required. This study would need to address historic and community impact of the stream restoration project.
- d. Stream morphology studies should be recommended as a next step.
- e. The stream restoration would require state/federal funding to proceed. If the site loses these funding prospects due to historic designation, the stream restoration project may not be realized.
- f. The Master Plan needs to address the stream restoration in a conceptual manner. There is community support for multiple uses of the site. Clarification will be required regarding what has been planned for an approved regarding the stream restoration.

11. Next Steps:

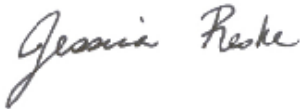
- a. Draft of Master Plan document – late December / early January
- b. Circulate draft for review (1 month review period per State Historical Fund)
- c. Town Council and Board of County Commissioners feedback will likely be sought following the draft review by the State Historical Fund and the Breckenridge Heritage Alliance.

End of Public Outreach Summary

The foregoing represents our understanding of the items discussed and the conclusions reached. If no corrections are received within 5 business days, the project will proceed based on this understanding.

Respectfully Submitted,

SLATERPAULL ARCHITECTS, INC.



Jessica Reske, AIA, LEED AP
Associate / Architect

Distribution: File
Breckenridge Heritage Alliance
State Historical Fund
Project Team

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Survey: REILING DREDGE

Question: For what activities do you most frequently use the Reiling Dredge trail and/or Turks' trail adjacent to the Dredge?

accessing other trails : 1

Other: : 3

horseback riding

snowshoeing

touring,hiking,photography,wildflower viewing

touring &/or bringing others to tour the Dredge site : 10

hiking : 7

mountain biking : 12

running : 0

walking your dog : 5

picnicking : 0

photography : 0

snowshoeing : 0

cross country skiing : 4

wildlife viewing : 0

wildflower spotting : 2

Question: How frequently and how long do you participate in these activities?

daily : 0



a few times a week : 12

a few times a month : 32

Question: What amenities at the Reiling Dredge site (e.g. signage, seating, barriers, etc) do you think could be added or changed?

signage(3)

nothing(2)

Nothing more is needed. It's fine the way it is. Spend your money elsewhere. Let it rot and sink. Or fix up the eyesore of mine tailings at the bottom of French Gulch near the Country Boy.

nothing, it is great as it currently is setup.

Perhaps more signage to further explain the dredge site.

Pictures of what it looked like in it's hay day, may already be there, not sure.. Past and Present pics are always nice.

Preservation is more important than adding . Signage would be my only wished for addition.The present viewing stations and barriers are attractive and interesting. I am not sure seating would add much.

preservation of trails most important and dredge; historic information

Remove all signage, etc. Let it return to nature.

signage & history

signage about history

Signage is pretty good. Don't even know if there's seating.

Signage should be enhanced. Increasing parking, especially paved parking, should be discouraged.

signage to other trail heads



We love the Dredge and always bring visitors to see it. For some we just do the short loop but for others we combine it with X10U8. We'd love more historical placards, but even as it is its a local treasure.

Additional seating or signage to the seating for those who are taking breaks on the Historic tours so they are not standing on the trail.

Additional seating (i.e. active rest) benches for those who are only walking as far as the dredge for historical viewing

as little as possible

Better signage

Better signage and parking would be helpful when first trying to locate this and many other sites. Once you know where you're going, it's not a big deal.

Disc golf course

Kids bike route(s)

Primitive campground

educational signage is critical for education and preservation reasons. I also think some level of interaction would be really unique. It seems that many of our historical sites are for viewing from a distance only. creating an interactive environment would be a really interesting concept to develop.

Fine as is

Good seating along with signs discussing the harm caused by dredge mining, so that the visitor is encouraged to think through the decisions that were made and the impact their decisions had.

Historic, interpretive

Historical definitions signage

I like it the way it is - it is nice for little kids. A good combination of nature and history.

I think anything added needs to be minimized, some signage or plaque about



the site, but anything else needs to be almost unseen so as not to scar the landscape around the area. Perhaps just trail maintenance.

I think it's good as it is

Improve the trail all the way around the pond and add seating and signage. Also, see what can be done to slow or stop the decay so that it is still around for future generations.

Its good

Less is more. Let it rot and have nature naturally take back what was stolen.

Maps, Maps, Maps - people are always mountain biking back there and are not sure where to go. I think the sign about the condition of the trails is useless. The mountain bikers go back there on their days off, period.

More detailed signage around the dredge about the history of it path and impact on the area would be awesome for visitors. Replicas of the dredge buckets, or other significant pieces that may allow visitor to truly get a sense of the machine itself.

More explanation of the dredge's history

More history

More information signage

More trash cans.

Never gave it more than a glance while gliding on by.

no changes

No signage. Seating OK. Split rail fence to preserve the area OK but not alot of dollar output.

Question: How do you envision these amenities improving the experience of the area?

Adding another landmark that is great for visitors to see and enjoy the experience of our old mining past.



Additional seating will improve the safety of the trails

Adds to understanding local history

Being able to educate children and visitors on the mining history is a very valuable part of Breckenridge's allure. I think the combination of outdoor activity (in this case Mountain Biking or XC skiing) and historical significance is a wonderful value that Breckenridge brings to residents and visitors.

Better understanding of history of the area

Better understanding of the dredging operation and how it fits in within the broader mining context.

Breck is a unique experience with and without the skiing. I would like to see the educational promotion of other areas around Breck.

By going away.

by informing people of their history it should improve their appreciation of the town

Cleaner, less dog poop on the trail.

Dk

Easier access for first timers.

engage the non-active users and visitors - engaging the historical significance for all user groups.

Get people thinking about human impact. Compare what happened in this location with dredge mining to other environmental decisions that have been made and are being made in our world.

Gives the historical perspective of the area

Great for kids and people interested in the history of the area.



Having a history is what separates Breckenridge from almost all other Colorado ski towns. It gives the town an identity and a character that makes it special - if we lose this history we're nothing more than a cheaper Vail, closer to Denver.

historical and keeping natural surroundings in tact while handling more visitors

I don't. I come for the shaded northern aspect x-c skiing...not viewing mining relics.

I think it is important to not only preserve the dredge feature, but also to point out the devastation they created in our County. It would be interesting to know what the County would have been like prior to the Dredge boat destruction. What did our forest look like before it was clear cut, etc. This would provide a context and understanding around the historical dredge revolution

informational for locals and tourists

It would be better if you removed all the safety barriers constructed a few years ago. They detract from the experience more than anything.

its good

It's good the way it is

Keeps it protected for a long yet accessible for viewing.

LEARN MORE HISTORY

leave it natural.

Makes the dredge more accessible and the signage would be educational for youth and tourists.

More people could appreciate the history. It's location "in place" at the end of a short hike is a wonderful plus.

More signage is always good.



More users/uses

Economic benefits to more land uses/users

N/a

No

Nothing

nothing needed

nothing, it is great as is.

People will get the history.

Support it's accessibility as a historic destination. It's a great 2 hour adventure destination for visitors.

Teach people the affects of human action on the environment

The awesome thing about that area is that you can cater the hike to the individual. Virtually no other hiking area has different loops where visitors can do a loop into the woods and be back at the B & B parking lot in 30 minutes, 1 hour, or 2 hours. The interpretive signs are awesome, wish there were more.

The mining history is interesting and can be communicated with signage and time-period lapsed photography. The impact of mining on the land should be emphasized.

The site is an important piece in history for the destruction of the environment. Let it be an example of the environmental damage created by mining.

to make hiking easier

Visitors would have a deeper appreciation of the county's heritage

Question: What would you most like to learn or experience at the Reiling Dredge site?

Nothing(2)



nothing additional

See my above comments...

statistics on the dredging

The dredge piles from the Reiling dredge to the B and B trailhead are a huge land resource that should be reclaimed for all types of recreation. For it to remain in its present blighted state with no public benefit is truly a shame. The "experience" of the dredge boat and remaining dredge is that the land was ripped up and left in rocky piles for the benefit of mining. Let's preserve the boat and pond, but get real about the potential public benefit of the remaining land.

the history of the site

The number of men it took to operate the dredge. the amount of gold they were excavating/ ton of rock. Maybe a replica of a dredge bucket so that people could visualize the size and number of buckets a dredge operated with. So many people only experience history from youtube or video shows, those that take the time to hike up and see the dredge should get a bonus.

The struggle/synergy between economic activity and the environment is worth exploring. I would be most interested in continuing to experience hiking/biking in the area and would not like to compromise these opportunities by over-investing in the historical significance of how mining left a legacy of brutalizing the landscape. We need not replicate this parallelism with a tourist attraction so accessible from town.

the workings of the dredge boat

Using the Reiling Dredge site to access all the other, nearby trails.

Visitors need an explanation about how this huge structure could move down the stream and that it really did leave all those rocks behind.

What are we gonna do with all those rocks?

What is being done to restore the area.



Who worked it

A genuine historic feel. I feel like visitors and locals alike appreciate when they can see a piece of this "living history", better than a museum, it is a real relic of the heritage we have in this area!

A good information board discussing the environmental impact that dredge mining had on this area. This is good information to spread so that we learn from past mistakes.

Additional / Regular tour times as the trail is one of the easier to access and is low impact as well as scenic.

An honest history of the dredge mining and how it ultimately affected the environment and landscape.

Best way the trails networks connect.

Better experience of the past

d

Dk

Historical facts

Historical significance and reasonable preservation of the site, but mostly a trailhead for Hiking, mountain biking and walking the doggie.

History

history of mining

history. don't need modern conveniences, they just make it less real.

How damaging the mining industry was to this valley and how long it's taken for anything to grow back.

How much gold production and its value.

How the dredge created the chaos that is French Gulch, and how we need to



be better stewards of our environment in the future.

How the system worked; some "big picture" facts about the process; how much gold (other minerals) came out of the dredging; how the dredging contributed to overall Summit County (or Breckenridge) mining production; history of the dredges

I like the peacefulness of the area and don't think anything needs to be changed

I would like to learn that the powers that be are making an effort to clean up the environmental disaster created by these monstrous machines.

I'd like to learn more about the history of the dredge and of mining - maybe 1-3 more placards - and to know that the dredge was being preserved. Not restored, but preserved!

I'd like to learn more about the mechanics of how the dredges worked.

Impact of dredges to Summit County

Interpretives

Learn: how much gold was found; what life was like during that period

Experience: see material from the mining period

Life during those times

maintaining trails and natural beauty; preservation

More information on the history and archaeology of the area.

More trails, a nice trail that walks all way around it would be great...

Nice quiet trail, shared by bikers and hikers and dogs!

Comments

Number of Comments 15

Comment 1: About twelve years ago, Randy Swan, who was, at the time, the Executive



Director of the Summit Historical Society (before BHA) asked me to visit this site and submit my thoughts for future of this resource. I cannot find my prepared project brief that I submitted to him, so sorry. However, my point can be summarized today as they were back then as follows ... the Owner, has to understand that the value in / around main street far outweighs any investment the town (or others) may sink (pun intended) into this resource. Having been involved in land based projects involving mining ruins, quite frankly, I am embarrassed that SHF has provided this many funds for professional service fees. Interpret the site and this resource (via signage / photos) and let these resources die peacefully. | By david G

Comment 2: I agree that the structure should be preserved to the extent of being stabilized. The site is an important reminder of environmental degradation of the past that is worth preserving for current residents and visitors. Other than perhaps some additional signage, I would oppose major investments to reconstruct the dredge or provide easier access. Funds could be better spent elsewhere. Access is already good, and the site "as is" preserves the image of the "days gone by" atmosphere of Breckenridge mining. | By Russ T

Comment 3: I'd be cautious about over-investing in Reiling Dredge area. Document the existing structure within its historical time structure-- use signage and photography to chronicle its heyday and past glory, but don't preserve or re-construct. Creating a "historical destination site" so accessible from town likely would destroy the multi-purpose benefits currently provided by the area. | By Steve A

Comment 4: As many have pointed out, the mining history of Breckenridge does distinguish our town from other "resort" towns. While the types of mining utilized in Breckenridge were highly destructive it is still the history of the town. The Reiling Dredge is a significant historical artifact and it should be preserved and maintained. Open mining continues to scar the earth today and we should remind ourselves of the damage caused to our environment by these types of mining. I was very interested in the history of the dredge when I first came upon it and believe others will feel the same way. | By Stephen G

Comment 5: I think that the extensive history of Breck is what distinguishes it from other mountain towns and makes it interesting and genuine. We should make every effort to preserve this history for our own benefit as locals as well as the enjoyment of tourists. | By Ross N

Comment 6: The Dredge doesn't represent a pretty moment in Colorado history, but for us it has helped us understand how river mining worked - and how the destruction that created all those mountains of rock came to be. Seeing it and then walking out through the hills of rock piles was sobering - and when we bring guests it sobers them too.

As far as the cost, I think it would help everyone to have a more concrete sense of the cost. Is it \$10,000 plus \$2,000 a year? \$50,000 plus \$1,000 a year to maintain? What are the options



at the various 'prices'? | By A S

Comment 7: Part of the lure of Breckenridge is the long history we have as a town and area. We were a real thriving town in the 1800's. That is special, we are not just a ski resort created in the 1960's. I think it is sad that locals don't know where some of our gems are. People need to be less concerned about the money or environment. The dredge is not doing anything currently to harm the environment, but the reality that it once existed and was here is something we should not just let rot because our values of today have changed. Everyone should be open to learning about our past, it is how we have grown and changed from mistakes made, but it is something we should not forget. | By Sarah O

Comment 8:

It is highly appropriate that we stabilize and preserve the Reiling Dredge. It is our opportunity and our responsibility to pass on the story without bias. This Dredge Boat may be the most unique example of its kind in North America because it still sits on the spot where it dredged up its last rock. The surrounding rock piles are an essential part of the context and they tell their own story. Over a several year process, the Reiling Dredge could possibly earn status on the National Register of Historic Places. We should embrace this opportunity and allow future generations to see and learn about our history for themselves.

| By Maryann R

Comment 9: I agree with Phil C5. Spend the town and county's money elsewhere. Let the dredge rot. There are already enough reminders of the destruction all around Breck.

| By Carol N

Comment 10: I am all about restoring it, within reason. If the State Historical Fund will only give us funding if a large portion of French Gulch is changed, I am not in favor. | By Jeff C

Comment 11: Spend the town tax money elsewhere. The Reiling dredge is fine like it is and deserves to rot away as a relic of a short-sighted and destructive era in Breckenridge history.

| By Phil C

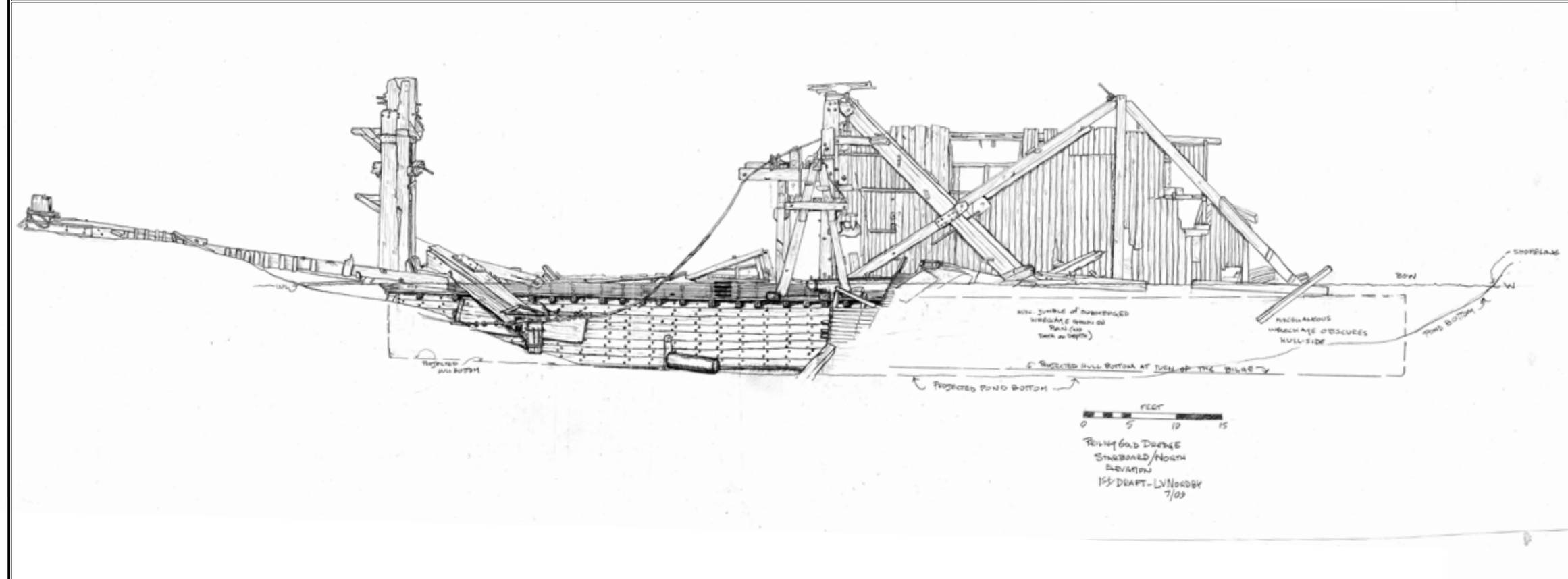
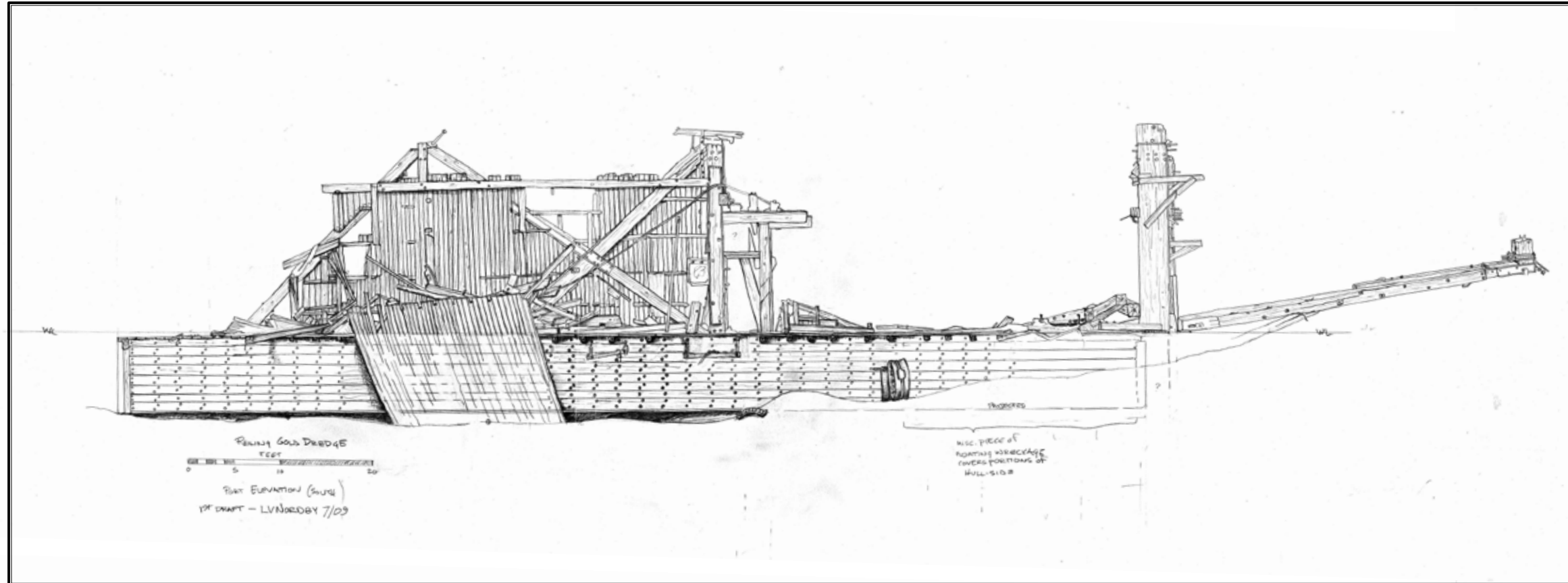
Comment 12: That you are calling it a 'gem' indicates the strong bias toward resurrection of the dredge boat. Let it decay in place and show that nature can reclaim areas devastated by mining. Show that nature can heal. The pond that the relic rests in is a lovely green space with habitat for bats, bugs and birds. Instead, create a museum of dredge mining somewhere more accessible to the public. Include a scale model of the hundreds of acres of river bottom churned up by the dredge boats, from the far reaches of the Swan River valley, up the Blue to the far reaches of French Gulch. Seeing an accurate scale of the destruction caused by the dredge boats will be far more informative and educational than trying to resurrect this one decrepit old boat. Let it decay in place, let Mother Nature have the final say. | By Leigh G

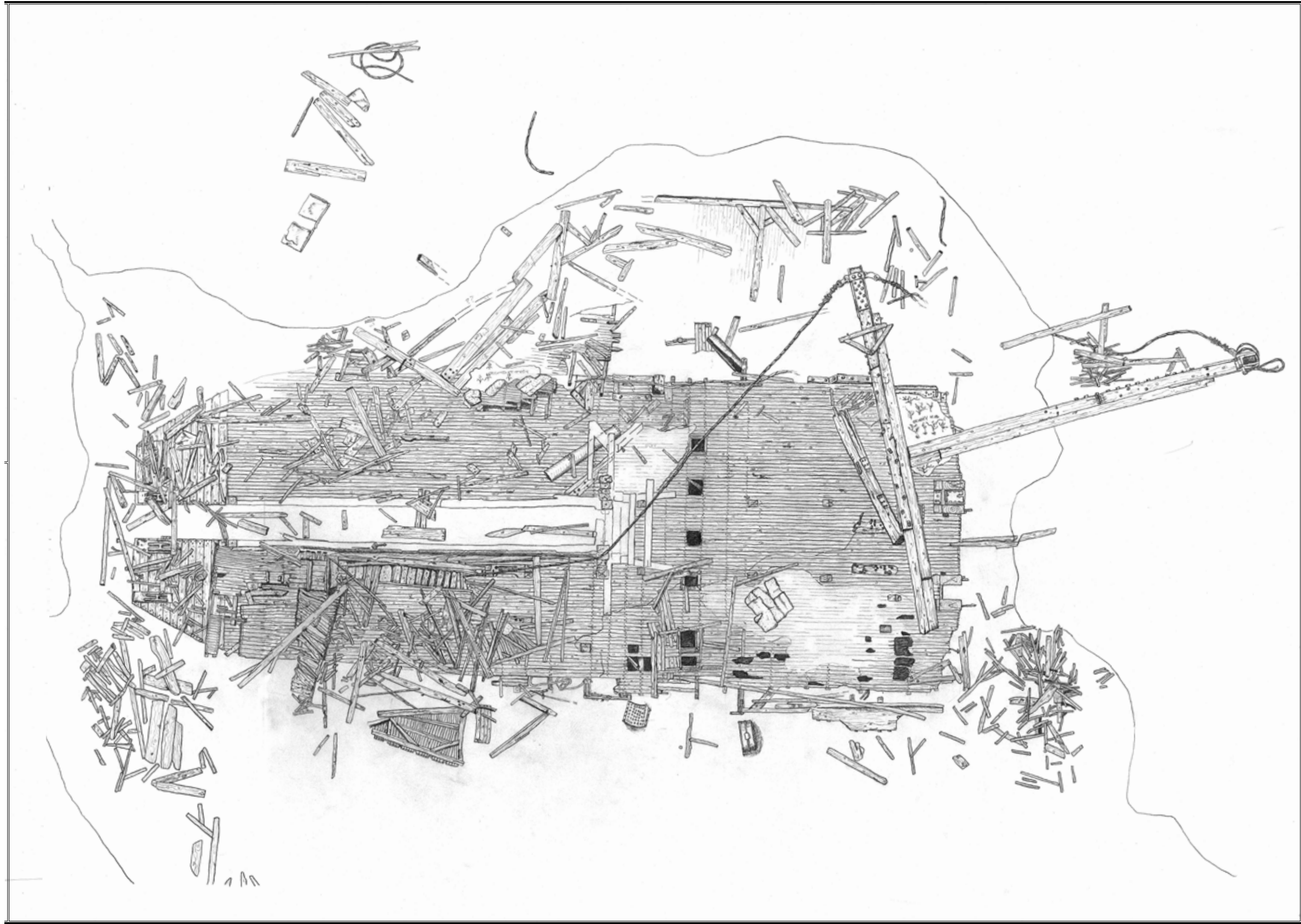


Comment 13: I would also like to see a display that shows the extent of the original environmental destruction. The EPA would have had a stroke! :-)| By Dave B

Comment 14: I don't even know where the reiling dredge is, and I have lived here for 22 years!
| By Susan L

Comment 15: Don't feel bad. I didn't know where it was either until a year ago, and I have lived here 34 years..... | By Dave B



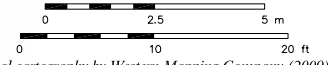


SUMMIT COUNTY, COLORADO
TOWN OF BRECKENRIDGE
**PLANIMETRIC MAP
AND
PROFILES
OF
REILING GOLD DREDGE**

N (UTM)



Scale: 1 inch = 7 feet (1:84)



Digital cartography by Western Mapping Company (2009).
DN 08-102-191208-8003.03 (August 17, 2009)

This project was partially funded by the Colorado Historical Society, State Historical Fund and the Town of Breckenridge

Map 6 of 6

NATIONAL REGISTER BULLETIN

Technical information on the the National Register of Historic Places:
survey, evaluation, registration, and preservation of cultural resources



U.S. Department of the Interior
National Park Service
Cultural Resources
National Register, History and Education

How to Complete the National Register Registration Form



10. GEOGRAPHICAL DATA

10. Geographical Data

Acreage of Property _____

UTM References

(Place additional UTM references on a continuation sheet.)

1			
	Zone	Easting	Northing
2			

3			
	Zone	Easting	Northing
4			

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

This section defines the location and extent of the property being nominated. It also explains why the boundaries were selected. Review the guidelines on pages 56 and 57 before selecting boundaries and completing this information. For additional guidance, see the National Register bulletin entitled *How to Establish Boundaries for National Register Properties*.

For discontinuous districts, provide a set of geographical data—including acreage, UTM, and a boundary description and justification—for each separate area of land. (See page 57 for an explanation of discontinuous districts.)

ACREAGE OF PROPERTY

Enter the number of acres comprising the property in the blank. Acreage should be accurate to the nearest whole acre; fractions of acres to the nearest tenth should be recorded, if known. If the property is substantially smaller than one acre, "less than one acre" may be entered. Where accuracy to one acre is not practical, for example, for districts over 100 acres, a USGS acreage estimator may be used to calculate acreage.

UTM REFERENCES

Enter one or more Universal Transverse Mercator (UTM) grid references to identify the exact location of the property. Enter only complete, unabbreviated references. Up to 26 references will be entered in the NRIS data base.

A United States Geological Survey (USGS) quadrangle map and a UTM counter are necessary tools for determining UTM reference points. The USGS map is also required documentation (see *Maps* on pages 61 to 63). Refer to *Appendix VIII* and the National Register bulletin on *Using the UTM Grid System to Record Historic Sites* for instructions on determining the references. Many State historic preservation offices will assist applicants in completing this item.

GUIDELINES FOR ENTERING UTM REFERENCES

- For **properties less than 10 acres**, enter the UTM reference for the point corresponding to the center of the property.
- For **properties of 10 or more acres**, enter three or more UTM references. The references should correspond to the vertices of a polygon drawn on the USGS map according to the following steps:
 1. Draw a polygon of three or more sides on the USGS map that approximately encompasses the area to be registered.
 2. Label the vertices of the polygon numerically, beginning at the northwest corner and moving clockwise.
 3. Determine the UTM reference for the point corresponding to each vertex (see *Appendix VIII*).
 4. Enter the references numerically on the form. Use a continuation sheet for additional references.
- For **linear properties of 10 or more acres**, such as railroad, canal, highway, or trail, enter three or more UTM references. The references should correspond to the points along a line drawn on the USGS map according to the following steps:
 1. Draw a line on the USGS map indicating the course of the property.
 2. Mark and label numerically points along the line that correspond to the beginning, end, and each major shift in direction. Order numbers in sequence from beginning to end.
 3. Determine the UTM reference for each point.
 4. Enter the references numerically on the form. Use a continuation sheet for additional references.
- If UTM references define the boundaries of the property, as well as indicate location, the polygon or line delineated by the references must correspond exactly with the property's boundaries. (See *Appendix VIII*.)

VERBAL BOUNDARY DESCRIPTION

Describe the boundaries of the property. Use one of the following forms:

- A map may be substituted for a narrative verbal boundary description. Reference to the map should be made in the blank on the form. (See page 58.)
- A legal parcel number.
- A block and lot number.
- A sequence of metes and bounds.

- Dimensions of a parcel of land fixed upon a given point such as the intersection of two streets, a natural feature, or a manmade structure.

The description must be **accurate** and **precise**. Follow guidelines on page 58.

BOUNDARY JUSTIFICATION

For all properties, provide a brief and concise explanation of the reasons for selecting the boundaries. The reasons should be based on the property's historic significance and

integrity, and they should conform to the *Guidelines for Selecting Boundaries* on pages 56 and 57.

The **complexity and length** of the justification depends on the nature of the property, the irregularity of the boundaries, and the methods used to determine the boundaries. For example, a city lot retaining its original property lines can be justified in a short sentence, while a paragraph may be needed where boundaries are very irregular, where large portions of historic acreage have been lost, or where a district's boundaries are ragged because of new construction. Properties with substantial acreage require more explanation than those confined to small city lots.

The boundary includes the farmhouse, outbuildings, fields, orchards, and forest that have historically been part of Meadowbrook Farm and that maintain historic integrity. That parcel of the original farm south of Highway 61 has been excluded because it has been subdivided and developed into a residential neighborhood.

Boundaries for **archeological properties** often call for longer justifications, referring to the kinds of methodology employed, distribution of known sites, reliability of survey-based predictions, and amount of unsurveyed acreage.

The southern boundary of the site is established by the limit of cultural materials and features and roughly corresponds to a lowering in grade. The highest artifact densities recovered during surface collection were noted at the northern and western edges of the plowed field. By extrapolation, it is likely that the site extends into the wooded areas to the north and west. The western boundary is established by the railroad cut which corresponds roughly to the original terrace edge. The northern and eastern boundaries are set by the contour line marking an abrupt fall to the wetland.

For **discontiguous districts**, explain in the boundary justification how the property meets the conditions for a discontiguous district and how the boundaries were selected for each area.

GUIDELINES FOR SELECTING BOUNDARIES

ALL PROPERTIES

- Carefully select boundaries to encompass, but not to exceed, the full extent of the significant resources and land area making up the property.
- The area to be registered should be large enough to include all historic features of the property, but should not include “buffer zones” or acreage not directly contributing to the significance of the property.
- Leave out peripheral areas of the property that no longer retain integrity, due to subdivision, development, or other changes.
- “Donut holes” are not allowed. No area or resources within a set of boundaries may be excluded from listing in the National Register. Identify nonhistoric resources within the boundaries as noncontributing.
- Use the following features to mark the boundaries:
 1. Legally recorded boundary lines.
 2. Natural topographic features, such as ridges, valleys, rivers, and forests.
 3. Manmade features, such as stone walls; hedgerows; the curblines of highways, streets, and roads; areas of new construction.
 4. For large properties, topographic features, contour lines, and section lines marked on USGS maps.

BUILDINGS, STRUCTURES AND OBJECTS

- Select boundaries that encompass the entire resource, with historic and contemporary additions. Include any surrounding land historically associated with the resource that retains its historic integrity and contributes to the property’s historic significance.
- For **objects**, such as sculpture, and **structures**, such as ships, boats, and railroad cars and locomotives, the boundaries may be the land or water occupied by the resource without any surroundings.
- For **urban and suburban properties** that retain their historic boundaries and integrity, use the legally recorded parcel number or lot lines.
- Boundaries for **rural properties** may be based on:
 1. A small parcel drawn to immediately encompass the significant resources, including outbuildings and associated setting, or
 2. Acreage, including fields, forests, and open range, that was associated with the property historically and conveys the property’s historic setting. (This area must have historic integrity and contribute to the property’s historic significance.)

HISTORIC SITES

- For **historic sites**, select boundaries that encompass the area where the historic events took place. Include only portions of the site retaining historic integrity and documented to have been directly associated with the event.

HISTORIC AND ARCHITECTURAL DISTRICTS

- Select boundaries to encompass the single area of land containing the significant concentration of buildings, sites, structures, or objects making up the district. The district’s significance and historic integrity should help determine the boundaries. Consider the following factors:
 1. **Visual barriers** that mark a change in the historic character of the area or that break the continuity of the district, such as new construction, highways, or development of a different character.
 2. **Visual changes** in the character of the area due to different architectural styles, types or periods, or to a decline in the concentration of contributing resources.

3. **Boundaries at a specific time** in history, such as the original city limits or the legally recorded boundaries of a housing subdivision, estate, or ranch.
4. **Clearly differentiated patterns** of historical development, such as commercial versus residential or industrial.

- A historic district may contain **discontiguous** elements only under the following circumstances:

1. **When visual continuity is not a factor** of historic significance, **when resources are geographically separate**, and **when the intervening space lacks significance**: for example, a cemetery located outside a rural village.
2. **When manmade resources are interconnected by natural features** that are excluded from the National Register listing: for example, a canal system that incorporates natural waterways.
3. **When a portion of a district has been separated by intervening development** or highway construction and when the separated portion has sufficient significance and integrity to meet the National Register criteria.

ARCHEOLOGICAL SITES AND DISTRICTS

- The selection of boundaries for archeological sites and districts depends primarily on the scale and horizontal extent of the significant features. A regional pattern or assemblage of remains, a location of repeated habitation, a location or a single habitation, or some other distribution of archeological evidence, all imply different spatial scales. Although it is not always possible to determine the boundaries of a site conclusively, a knowledge of local cultural history and related features such as site type can help predict the extent of a site. Consider the property's setting and physical characteristics along with the results of archeological survey to determine the most suitable approach.

- Obtain evidence through one or several of the following techniques:

1. **Subsurface testing**, including test excavations, core and auger borings, and observation of cut banks.
2. **Surface observation** of site features and materials that have been uncovered by plowing or other disturbance or that have remained on the surface since deposition.
3. **Observation of topographic or other natural features** that may or may not have been present during the period of significance.
4. **Observation of land alterations** subsequent to site formation that may have affected the integrity of the site.
5. **Study of historical or ethnographic documents**, such as maps and journals.

- **If the techniques listed above cannot be applied**, set the boundaries by conservatively estimating the extent and location of the significant features. Thoroughly explain the basis for selecting the boundaries in the boundary justification.

- **If a portion of a known site cannot be tested** because access to the property has been denied by the owner, the boundaries may be drawn along the legal property lines of the portion that is accessible, provided that portion by itself has sufficient significance to meet the National Register criteria and the full extent of the site is unknown.

- Archeological districts may contain **discontiguous elements** under the following circumstances:

1. When one or several outlying sites has a direct relationship to the significance of the main portion of the district, through common cultural affiliation or as related elements of a pattern of land use, and
2. When the intervening space does not have known significant resources.

(Geographically separate sites not forming a discontiguous district may be nominated together as individual properties within a multiple property submission.)

GUIDELINES FOR VERBAL BOUNDARY DESCRIPTION

- A map drawn to a scale of at least 1" = 200 feet may be used in place of a narrative verbal description. When using a map, note under the heading "verbal boundary description" that the boundaries are indicated on the accompanying base map. The map must clearly indicate the boundaries of the property in relationship to standing structures or natural or manmade features such as rivers, highways, or shorelines. Plat, local planning, or tax maps may be used. Maps must include the scale and a north arrow.

The boundary of Livermore Plantation is shown as the dotted line on the accompanying map entitled "Survey, Livermore Plantation, 1958."

- For **properties** whose boundaries correspond to a polygon, section lines, or contour lines on the USGS map, the boundaries marked on the USGS map may be used in place of a verbal boundary description. In this case, simply note under the heading "verbal boundary description" that the boundary line is indicated on the USGS map. If USGS quadrangle maps are not available, provide a map of similar scale and a careful and accurate description including street names, property lines, or geographical features that delineate the perimeter of the boundary.

The boundary of the nominated property is delineated by the polygon whose vertices are marked by the following UTM reference points: A 18 313500 4136270, B 18 312770 4135940, C 18 313040 4136490.

- To describe only a **portion of a city lot**, use fractions, dimensions, or other means.

The south 1/2 of Lot 36

The eastern 20 feet of Lot 57

- If **none of the options listed above are feasible**, describe the boundaries in a narrative using street names, property lines, geographical features, and other lines of convenience. Begin by defining a fixed reference point and proceed by describing the perimeter in an orderly sequence, incorporating both dimensions and direction. Draw boundaries that correspond to rights-of-way to one side or the other but not along the centerline.

Beginning at a point on the east bank of the Lazy River and 60' south of the center of Maple Avenue, proceed east 150' along the rear property lines of 212-216 Maple Avenue to the west curblineline of Main Street. Then proceed north 150' along the west curblineline of Main Street, turning west for 50' along the rear property line of 217 Maple Avenue. Then proceed north 50' to the rear property line of 215 Maple Avenue, turning west for 100' to the east bank of the Lazy River. Then proceed south along the river bank to the point of origin.

- For **rural properties** where it is difficult to establish fixed reference points such as highways, roads, legal parcels of land, or tax parcels, refer to the section grid appearing on the USGS map if it corresponds to the actual boundaries.

NW 1/4, SE 1/4, NE 1/4, SW 1/4, Section 28, Township 35, Range 17

- For **rural properties less than one acre**, the description may be based on the dimensions of the property fixed upon a single point of reference.

The property is a rectangular parcel measuring 50 x 100 feet, whose northwest corner is 15 feet directly northwest of the northwest corner of the foundation of the barn and whose southeast corner is 15 feet directly southeast of the southeast corner of the foundation of the farmhouse.

- For **objects and structures**, such as sculpture, ships and boats, railroad locomotives or rolling stock, and aircraft, the description may refer to the extent of dimensions of the property and give its location.

The ship at permanent berth at Pier 56.

The statue whose boundaries form a circle with a radius of 17.5 feet centered on the statue located in Oak Hill Park.



SLATERPAULL
ARCHITECTS

	Actual	Budget	Projected	Proposed				TOWN OF BRECKENRIDGE OPEN SPACE FUND PRO FORMA						
EXPENDITURES	2013	2014	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Comments	
Land Acquisitions	827,450	450,000	557,585	800,000	824,000	848,720	874,182	900,407	927,419	955,242	983,899	1,013,416	Budget line items 54421 and 53410 \$557,585 committed so far in 2014 3% annual growth after 2016	
Main St. Property Acqision (Bartlett & Shock Lots 52 & 53)	200,000	399,996	400,000	350,000									Main St. park parcels acquisition, paid back to Town General Fund that carried initial purchase	
Wellington/Oro Treatment Plant	180,945	174,005	174,200	174,000	179,220	184,597	190,134	195,839	201,714	207,765	213,998	220,418	Wellington/Oro treatment plant costs (53400), including part-time operator (15k for 2014 and 2015), and plant replacement fund (11k allocated annually)	
Debt Service B&B	297,627	302,402	302,402	301,892	301,244	300,454	299,523	298,988	299,974	299,974	299,974	299,974	55524, \$4.5mil bond @5% 20 yrs; based on principal and interest payments scheduled	
Blue River Restoration/McCain stretch				600,000	210,000	480,000							30% of river restoration costs to be shared with capital fund.	
Blue River Parks/Block 11				25,000	45,000		100,000		100,000		100,000		Phase 1 of river park improvements in 2015/2016, costs shared with capital fund with hopes of \$350k grant from GOCO. Future phases (placeholders included in 2018, 2020, and 2022) would be cost-shared between open space, capital fund, and the housing fund, also with the potential for grants.	
Reiling Dredge Preservation/Stabilization				27,500	31,813	47,750							Contribution towards stabilization of Reiling Dredge on Town/County owned open space. Includes three phases outlined in the recently completed Reiling Dredge Preservation Master Plan. All phases are still subject to Town/County approval and determination of what extent of preservation is necessary. Assumes the County and Town share the costs of the preservation 50/50. 50 % of the Town's contribution would come from the BHA capital fund and the remaining 50% would come from the Open space fund.	
Administration	263,949	324,336	323,522	355,768	366,441	377,434	388,757	400,420	412,433	424,806	437,550	450,676	51111-51138 (wages and benefits), 52214-53321 (printing and postage), 53372-53374 (training, travel, and BOSAC), 58000 (garage fund) includes 5k for dump truck purchase in 2014, 58020 (facilities fund), 55512 liability insurance, 3% annual growth, 53388-53389 (insurance deductibles), 53338 overages	
Legal Services	0	5,004	5,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	53352, Town Attorney time for open space issues, B&B Consent decree followup	
Consultants	46,783	79,999	80,000	80,000	82,400	84,872	87,418	90,041	92,742	95,524	98,390	101,342	53355, 3% annual growth, Cucumber monitoring (water quality, wildlife monitoring)	
Other professional services/forest mgmt	101,901	102,001	102,000	102,000	105,060	108,212	111,458	114,802	118,246	121,793	125,447	129,211	53359 forest mgmt, weed control, GH forest mgmt/health planning, tree planting, Cucumber Gulch restoration efforts	
Other contracted services/surveying	3,200	10,000	8,500	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	53399 surveying and appraisals	
Trails construction and maintenance	145,756	187,500	187,500	217,500	242,500	267,500	292,500	317,500	342,500	367,500	392,500	417,500	52229, 52230, 52231, 54426 Town trails and landscape construction, GH trails, Friends of Breck, \$25k annual growth based on increased trail mileage and associated maintenance	
TOTAL EXP	2,067,611	2,035,243	2,140,709	3,048,660	2,403,128	2,715,452	2,360,364	2,334,879	2,512,417	2,490,515	2,670,206	2,651,538		
REVENUES														
Sales Tax	1,985,224	1,961,385	2,218,291	2,268,000	2,290,680	2,313,587	2,336,723	2,360,090	2,383,691	2,407,528	2,431,603	2,455,919	Based on 1% annual growth	
Interest	5,343	4,600	9,099	9,490	6,547	7,338	9,397	9,363	11,512	13,185	14,376	15,072		
B&B Land Sales												425,000	Potential divestiture properties (Peabody and Williams Placers--revenues split with County)	
TDR Sales	12,610	133,562	9,871	139,675	527,745	10,000	10,100	10,201	10,303	10,406	10,510	10,615	2015 includes: \$129,875 for Town's share of TDR proceeds from Peak 8 development and \$9,800 for Beaver Run TDR. 2016 includes 18.3 TDRs for Breck Mountain Lodge (\$357,090 for Town's share assuming most (75%) are purchased from TDR Bank) and 8.76 TDRs for Maggie Point annexation (\$170,655 for Town's share assuming 75% are purchased from TDR Bank). 1 % annual growth	
Grants	12,275	40,450	30,411	82,500	83,325	84,158	85,000	85,850	86,708	87,575	88,451	89,336	2014 includes \$30.4k for SideDoor state trails grant. 2015 includes \$52.5k for DNR forest mgmt grant (Town share) and \$30k for first installment on state trails grant (Turks, etc., Town's share)	
Summit County reimbursement	74,621	82,000	82,000	82,000	84,460	86,994	89,604	92,292	95,060	97,912	100,850	103,875	Wellington/Oro treatment plant costs, not including replacement fund	
Trails map sales	4,568	7,000	7,761	7,000	7,070	7,141	7,212	7,284	7,357	7,431	7,505	7,580	1 % annual growth	
Miscellaneous	30,286	10,575	35,756	10,600	10,706	10,813	10,921	11,030	11,141	11,252	11,365	11,478	49999 Rental income (dogsled rides) and 44240 W/O zinc sales 1 % annual growth	
TOTAL REV	2,124,927	2,239,572	2,393,189	2,599,265	3,010,533	2,520,030	2,548,957	2,576,110	2,605,773	2,635,290	2,664,660	3,118,875		
BEG. BALANCE	569,650	626,966	626,966	879,446	430,051	1,037,457	842,035	1,030,629	1,271,860	1,365,216	1,509,991	1,504,445	previous year's balance	
END BALANCE	626,966	831,261	879,446	430,051	1,037,457	842,035	1,030,629	1,271,860	1,365,216	1,509,991	1,504,445	1,971,782		
W/O Plant Replacement Reserve	22,000	33,000	33,000	44,000	55,000	66,000	77,000	88,000	99,000	110,000	121,000	132,000	Annual allocation of \$11k for replacement of pumps and other equipment at W/O Plant	
TOTAL FUND BALANCE	648,966	864,261	912,446	474,051	1,092,457	908,035	1,107,629	1,359,860	1,464,216	1,619,991	1,625,445	2,103,782		