State of Utah

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Department of Natural Resources
Division of Oil, Gas and Mining

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To: Joel Ferry, Executive Director, Department of Natural Resources JF

Through: Mick Thomas, Director, Division of Oil, Gas & Mining MT

Through: Dana Dean, Deputy Director – Mining, Division of Oil, Gas & Mining

From: Steve Fluke, Administrator, Abandoned Mine Reclamation Program SF

Date: October 29, 2024

Subject: **Emergency Procurement for Phase II Design and Construction Services, Kenilworth Coal Mine Fire, AMR/007/960/C**

This memo is to document the need for emergency procurement for Phase II design and construction services to address the Kenilworth Coal Mine Fire. This underground coal mine fire is located in Carbon County at the historic Kenilworth Coal Mine near the town of Kenilworth.

AMRP received approval on September 9, 2024 for emergency procurement of engineering services. Brierley Associates, Inc. was subsequently contracted (Contract #AMR007960) to investigate the fire conditions and recommend methods for addressing the fire. Brierley delivered their Report of Investigation on October 16, 2024.

As anticipated, AMRP now plans to procure Phase II engineering services from Brierley Associates to develop construction specifications and provide construction oversight to guide our contractor during the construction project. We also plan to procure construction services from The 5 Seventeen Company to implement the construction plan developed by Brierley Associates, Inc.

Details of the Kenilworth Coal Mine Fire, the need for emergency Phase II engineering and construction services, and the proposed work are included in the attached synopsis. I am requesting emergency procurement approval provided under UCA 63G-6a-803 UAC R33-8-401. Thank you for your consideration in this matter.

Emergency Procurement for Phase II Design and Construction Services
Kenilworth Coal Mine Fire
AMR/007/960/C
October 29, 2024

I agree that this is an emergency under UCA 63G-6a-803 UAC R33-8-401, Delegation to Executive Directors, and authorize the Division of Oil, Gas and Mining to proceed with the emergency procurement.

10-6-2024

Joel Ferry — Date
Executive Director, DNR

Attachment: Emergency Synopsis and Construction Procurement

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Kenilworth Mine Coal Fire
Emergency Synopsis and Phase II Engineering and Construction Procurement
AMR/007/960/C

The Division of Oil, Gas & Mining, Abandoned Mine Reclamation Program (AMRP) was originally made aware of the Kenilworth Coal Mine Fire in October 2021. The historic Kenilworth Mine is located in Carbon County approximately two miles northeast of Helper and approximately 0.4 miles northwest of Kenilworth (See Map 7). Site visits at that time documented the location and size/extent of the fire and, in coordination with the Division of Forestry, Fire and State Lands (FFSL), it was determined that the fire did not pose a significant risk due to the limited surface expression of fire, low likelihood of spread, and low visitation due to difficult access. The Kenilworth Coal Mine Fire was included in an engineering contract with Tetra Tech to monitor and provide recommendations on future actions.

In August 2024, FFSL received multiple reports of smoke from the Kenilworth Mine. AMRP and FFSL visited the site again and observed that a new subsidence vent hole had formed and rapidly expanded. AMRP received emergency procurement approval on September 9, 2024 to investigate the fire and assess management options.

AMRP contracted Brierley Associates, Inc. to investigate the fire, assess its progress, recommend abatement methods, and assess their feasibility. Brierley delivered their Report of Investigation on October 16, 2024. They reported the existence of multiple subsidence cracks through which the fire is taking in fresh air and sustaining its growth. Brierley indicated that the steep terrain would preclude the use of an excavator to expose the fire. The subsidence hole acting as the main vent is expanding according to measurements made across three site visits on August 20, September 19, and October 3. On October 21, Kenilworth residents and FFSL personnel both reported a second smoke vent to the west of the main vent. The only feasible abatement method Brierley recommends is using MSHA-approved, expanding, fire-resistant foam to seal subsidence cracks. The immediate goal is to suppress airflow enough to dampen the fire and reduce or eliminate the venting smoke in the cliffs above Kenilworth.

Taking these measures should address air quality concerns for the residents of Kenilworth while AMRP proceeds with extensive, non-emergency investigation and abatement of the fire in the coming months.

As anticipated at the time of the previous emergency procurement, we now require Phase II engineering and construction services to implement this fire abatement method.

Need for Emergency Action

It is imperative that the fire be addressed while it is contained near the surface. Coal fires become more difficult to extinguish as they migrate underground and access mine workings. Brierley indicated that the steep terrain would preclude the use of an excavator to expose the fire. On October 21, Kenilworth residents and FFSL personnel both reported a second smoke vent to the west of the main vent. Public concern is increasing, and Kenilworth residents have been reporting ongoing respiratory effects and unpleasant odors since August.

Emergency conditions requiring prompt action are as follows:

- Brierley's investigation revealed multiple subsidence cracks through which the fire is taking in fresh air, sustaining its growth.
- Brierley's investigation measured the size of the vent hole on three different dates and determined it is increasing.
- Brierley's investigation identified anomalous heat flow in the coal seam above the existing vent, indicating possible spread of the fire to the overlying Royal Blue mine workings.
- On October 21, a second source of smoke was reported uphill and west of the main vent, near the location of the anomalous heat flow in the Royal Blue mine workings.

Need for Emergency Procurement of Construction and Related Engineering Services

The AMRP has successfully extinguished several coal refuse fires and one coal seam fire in recent years. AMRP is charged with addressing coal fires related to abandoned coal mines and has funding available through the Surface Mining Control and Reclamation Act AML fund. Following the successful field investigation and proposal of a feasible management strategy from Brierley, AMRP now desires to have the engineers promptly develop construction specifications and provide construction management with their expertise. We require both an engineering contract to begin immediately producing specifications and a construction contract to begin work as soon as specifications are finished.

The standard procurement process for engineering services takes up to 10 weeks as follows:

- Develop a Request for Statements of Qualifications (1-2 weeks)
- State Purchasing posts the Request on the U3P (Utah Public Procurement Place) (3 weeks)
- AMRP staff evaluates the proposals submitted and selects the most qualified firm (1-2 weeks)
- State Purchasing negotiates scope of work and costs with most qualified firm (2-3 weeks)
- Engineering contract is awarded and engineering work begins

The standard procurement process for construction services takes up to 6 weeks as follows:

- State Purchasing posts the project on the U3P for competitive bids, requiring contractors to attend a pre-bid site visit because of the specialized nature of the work (2-3 weeks)
- AMRP staff tabulates and evaluates the submitted bids and determines the lowest responsive and responsible bidder (3 days)
- State Purchasing awards the bid and awaits contractor's performance bond (2 weeks)
- Bond is verified and work begins

By conducting two emergency procurements, one for engineering services for construction support and one for construction services, Phase II engineering work could begin as soon as one week from the date of approval and construction work could begin as soon as three weeks from the date of approval. This would save up to fifteen weeks of procurement time during which the fire is likely to worsen and winter weather would preclude construction work until late spring.

Proposed Engineering Work

Authorization for an emergency procurement of engineering services will allow AMRP to continue working with Brierley Associates to develop construction specifications based on their recent investigation of the fire. A contract can be negotiated and signed to have work begin within a week. It is anticipated that the scope of work will be as follows:

- Develop construction specifications and an engineer's cost estimate for the fire abatement work
- Provide construction oversight to ensure the application of phenolic resin foam is conducted as specified in the necessary air intakes, subsidence features, and cracks
- Conduct ongoing investigation as the work progresses to identify additional air intakes and subsidence features to be sealed
- Report construction outcomes, including as-built design drawings, and provide recommendations for future fire investigation and abatement actions

Proposed Construction Work

Authorization for an emergency procurement of construction services will allow AMRP to proceed with construction promptly upon receipt of construction specifications developed by Brierley. It is anticipated that the scope of work will be as follows:

- Obtain MSHA-approved, two-part fire-resistant phenolic resin foam along with necessary pumping/spray equipment
- Secure helicopter services (there is some potential for this to be secured through an existing Forestry, Fire and State Lands contract)
- Infill and seal air intakes, subsidence, and crack features with MSHA-approved, fire-resistant phenolic resin foam
- Infill and seal the main subsidence vent hole with MSHA-approved, fire-resistant, phenolic resin foam once all contributing air intakes have been identified and infilled.

Land Status & Responsibility

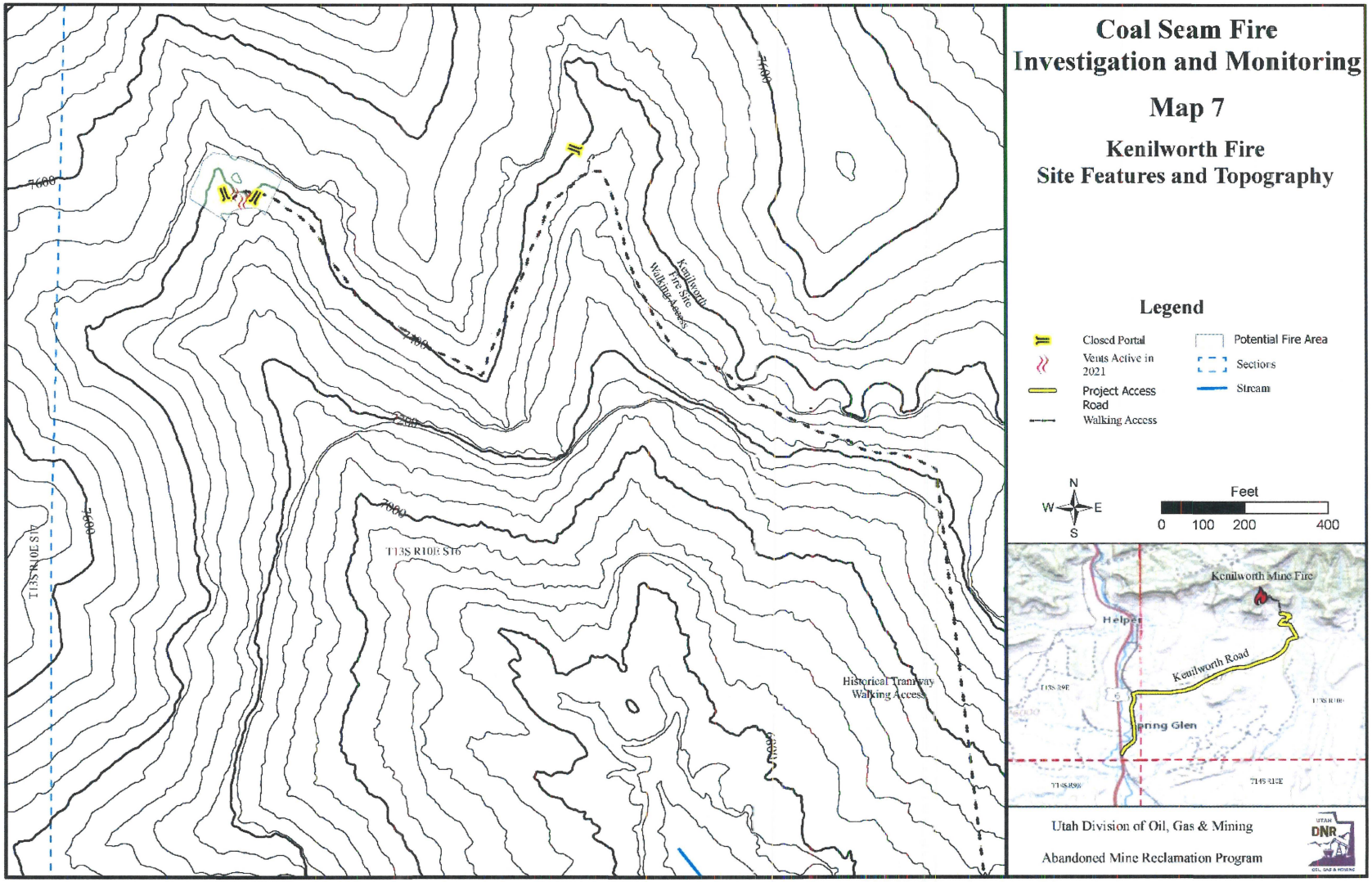
Fire site and access – Blackhawk Ranch Zone Business LLC (Parcel No. 02-0430-0000).
Mineral Owner - Blackhawk Coal Company
AMRP – has jurisdiction for coal fires associated with abandoned mines.
FFSL – has provided aerial resources for access and vegetation removal support.

Estimated Cost

$120,000-$192,000 for engineering services
$245,000-$493,000 for construction services

The range in costs for both engineering and construction is for between 1 and 3 weeks of construction.

LOCATION MAP



IMAGES

Main vent hole on August 20, 2024.

Main vent hole on October 22, 2024, with an additional smoke plume in the left of the photo.

Signature: Steven Fluke (Oct 30, 2024 23:15 MDT)

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Signature:

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Signature: Mick Thomas (Oct 31, 2024 08:49 MDT)

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