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Date: March 19, 2020
To: Interested Persons, Organizations, and Agencies
Subject: Diamond Fork System Environmental Update Project

The Central Utah Water Conservancy District (District), Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission), and the United States Department of the Interior – Central Utah Project Completion Act Office (CUPCA Office), as Joint Lead Agencies (JLAs), are proposing to:

- adjust instream flow deliveries to Sixth Water and Diamond Fork Creeks to support and sustain functional fluvial, geomorphic, and ecological processes;
- provide the flexibility necessary to meet inspection and maintenance requirements of the Diamond Fork System to continue the delivery of contracted water and instream flows; and
- prevent the continuous corrosion of the Upper Diamond Fork Flow Control Structure from nearby hydrogen sulfide springs.

The JLAs have initiated the National Environmental Policy Act (NEPA) process and are preparing an Environmental Assessment (EA). As part of the NEPA process, the JLAs are soliciting comments regarding the proposed project. Under normal circumstances we would hold a Public Information Open House, but due to the current health concerns we will not be holding a meeting at this point in the NEPA process.

Scoping Document

The enclosed Scoping Document provides information on the proposed project, contact information, and how to submit comments. Please submit your comments to us to let us know if there are issues and concerns that we need to take into consideration as we move into the analysis of the alternatives and the No-Action Alternative.

How to Comment and Provide Input

The JLAs are seeking comment and input from the public and agencies regarding the Proposed Action. Comments on the Diamond Fork System Environmental Update Project must be **submitted by Friday, April 24, 2020**. Comments may be submitted by mail, email, or on the project website.

Project website: <https://cuwcd.com/diamondfork.htm>
Mailing Address: 1426 E 750 N Suite 400, Orem, Utah 84097
Email: sarah@cuwcd.com

We appreciate your interest and participation with this project.

Sincerely,

Sarah Sutherland
Environmental Programs Manager

ec: Reed Murray, CUPCA Program Director
Mark Holden, Mitigation Commission Executive Director

RECEIVED

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SALT LAKE

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DIAMOND FORK SYSTEM ENVIRONMENTAL UPDATE

The Central Utah Water Conservancy District (District), the U.S. Department of the Interior, Central Utah Project Completion Act Office, and the Utah Reclamation Mitigation and Conservation Commission, as Joint Lead Agencies (JLAs), are proposing to

- adjust instream flow deliveries to Sixth Water and Diamond Fork Creeks to support and sustain functional fluvial, geomorphic, and ecological processes;
- provide the flexibility necessary to meet inspection and maintenance requirements of the Diamond Fork System to continue the delivery of contracted water and instream flows; and
- prevent the continuous corrosion of the Upper Diamond Fork Flow Control Structure from nearby hydrogen sulfide springs.

The JLAs are preparing an environmental assessment (EA) for the Diamond Fork System Environmental Update (proposed action) to meet the requirements of the National Environmental Policy Act (NEPA).

ADJUST INSTREAM FLOW

BACKGROUND

The 1992 Central Utah Project Completion Act (CUPCA) (Public Law 102-575, Title III, Section 303 (c)) mandated the minimum instream flows delivered to Sixth Water Creek (25 cubic feet per second [cfs] November–April and 32 cfs May–October) and Diamond Fork Creek (60 cfs October–April and 80 cfs May–September). The minimum flow mandates within CUPCA were based on a 1990 design for the Diamond Fork System that included features and proposed operations that were substantially different from what was ultimately built and operated. The minimum instream flows to Sixth Water Creek are delivered through the Strawberry Tunnel. The minimum instream flows to Diamond Fork Creek have been delivered through the sleeve valves at the Sixth Water Flow Control Structure; however, the low supplemental flows required to meet winter minimum instream flows have damaged the valves, which were not designed for low flow deliveries. As a result, winter minimum instream flows for both Sixth Water and Diamond Fork Creeks are met through deliveries from the Strawberry Tunnel and from natural flows (Figure 1).

Ecological monitoring of the ecosystem conducted between 2005 and 2012 raised concerns that the CUPCA-mandated minimum flows are too high to promote healthy ecological conditions in both Diamond Fork and Sixth Water Creeks (see Figure 1). From 2015 to 2019, the JLAs conducted a study to evaluate the instream flows of Sixth Water and Diamond Fork Creeks and to identify flow regimes that would improve their ecological function. The study findings are presented in *Comprehensive Study and Recommendations for Instream Flow Requirements on Sixth Water Creek and Diamond Fork River* (Wilcock et al. 2019). The findings presented in this report are the basis for consideration of changes to minimum instream flows. In addition, consideration is given to the need to provide irrigation deliveries under low flow conditions.

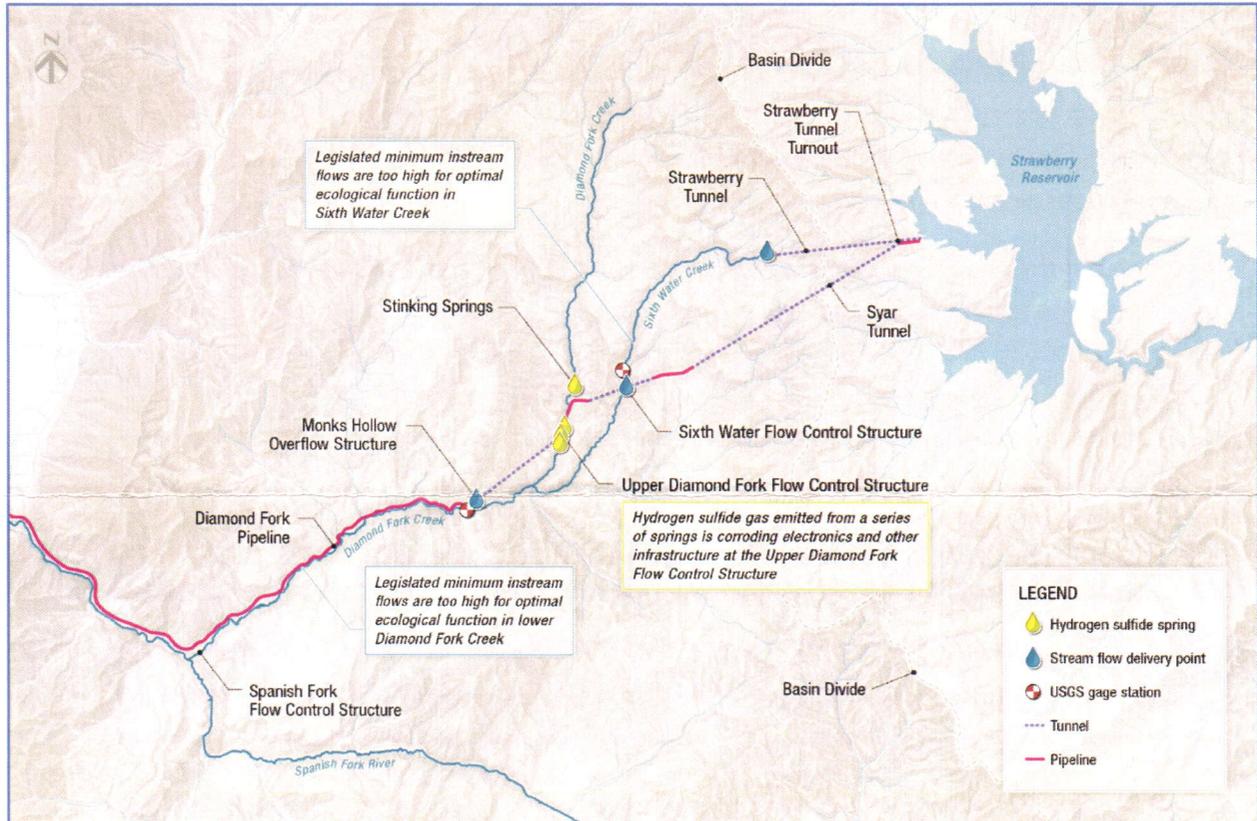


Figure 1. Diamond Fork System of the Bonneville Unit of the Central Utah Project.

INSTREAM FLOW ALTERNATIVES TO BE EVALUATED

The flow modification alternatives modify minimum instream flows for Sixth Water and Diamond Fork Creeks from the 1992 CUPCA-legislated flows. The proposed new minimum flows aim to improve ecological conditions in both Sixth Water and Diamond Fork Creeks. Three minimum flow alternatives are being evaluated (Figure 2):

- Under Instream Flow Alternative 1, flows of 20 cfs discharged into the Strawberry Tunnel and into Sixth Water Creek would be released year-round without any additional supplemental flow releases during the winter. With natural flows that enter the system, it is anticipated that base flows at the U.S. Geological Survey (USGS) Sixth Water gage would range from 22 to 28 cfs and base flows at the Monks Hollow USGS gage would range from 25 to 40 cfs in the winter and 41 to 65 cfs in the summer.
- Under Instream Flow Alternative 2, between 20 cfs and 25 cfs would be released into the Strawberry Tunnel to maintain flows in Sixth Water Creek at 25 cfs year-round as measured at the USGS gage. Minimum flows for Diamond Fork Creek measured at the Monk's Hollow USGS gage would be 40 cfs year-round, likely requiring supplemental flows from the Sixth Water Flow Control Structure and/or Monk's Hollow, depending on the time of year. With natural flows entering the system, a range of 40 to 65 cfs is expected at the Monk's Hollow USGS gage.

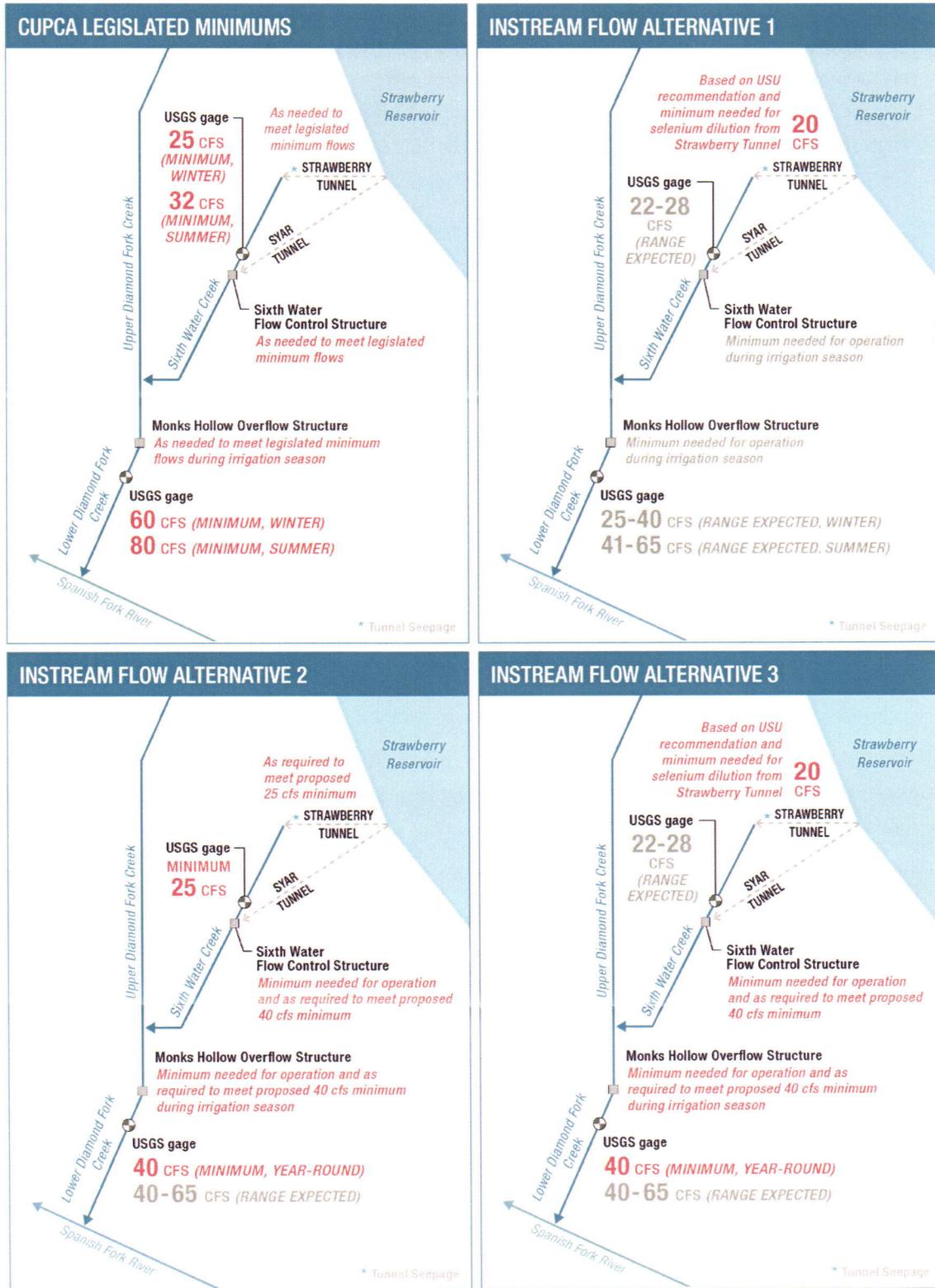


Figure 2. Instream flow alternatives.

- Under Instream Flow Alternative 3, minimum flows into Strawberry Tunnel would be 20 cfs year-round, similar to Alternative 1. In Diamond Fork Creek, minimum flow targets would be 40 cfs at the USGS gage, requiring supplemental flows from the Sixth Water Flow Control Structure and/or Monk's Hollow Overflow Structure, depending on the time of year. With natural flows that enter the system, it is anticipated that flows at the Sixth Water USGS gage would range from 22 to 28 cfs and flows at the Monks Hollow USGS gage would range from 40 to 65 cfs.

MODIFICATIONS TO DIAMOND FORK SYSTEM MAINTENANCE SCHEDULE

BACKGROUND

The 1999 Diamond Fork System Final Supplemental Environmental Impact Statement (FS-EIS) outlined the inspection and maintenance schedule for the Diamond Fork System, setting specific timing for when maintenance activities could occur, intervals for recurring maintenance needs, and the durations for which parts of the system could be shut down for inspection. Since 1999, as more components of the system have been built, there have been changes from what was considered in the 1999 FS-EIS, and some system components cannot be fully inspected or maintained within the time frames and intervals specified in the FS-EIS. Additionally, the experience gained through operating and maintaining the system over the past 15 years has demonstrated that the maintenance schedule specified by the 1999 FS-EIS is not compatible with actual system maintenance needs and therefore requires updating.

MAINTENANCE SCHEDULE ALTERNATIVE TO BE EVALUATED

The JLAs propose to revise the maintenance schedule so that routine inspection and maintenance occurs year-round as needed while meeting water delivery and minimum instream flow obligations with minimal interruptions to the extent practicable.

HYDROGEN SULFIDE SPRINGS

BACKGROUND

During construction of the Upper Diamond Fork Tunnel in 2002, a fault zone that contained groundwater with high concentrations of hydrogen sulfide was intercepted. The interception of the fault and subsequent efforts to plug the interception caused the groundwater to resurface and produce new hydrogen sulfide springs near the Upper Diamond Fork Flow Control Structure (UDFFCS) (Figure 3). As a result, the hydrogen sulfide gas emitted from these springs is corroding electronics and other infrastructure at the UDFFCS.

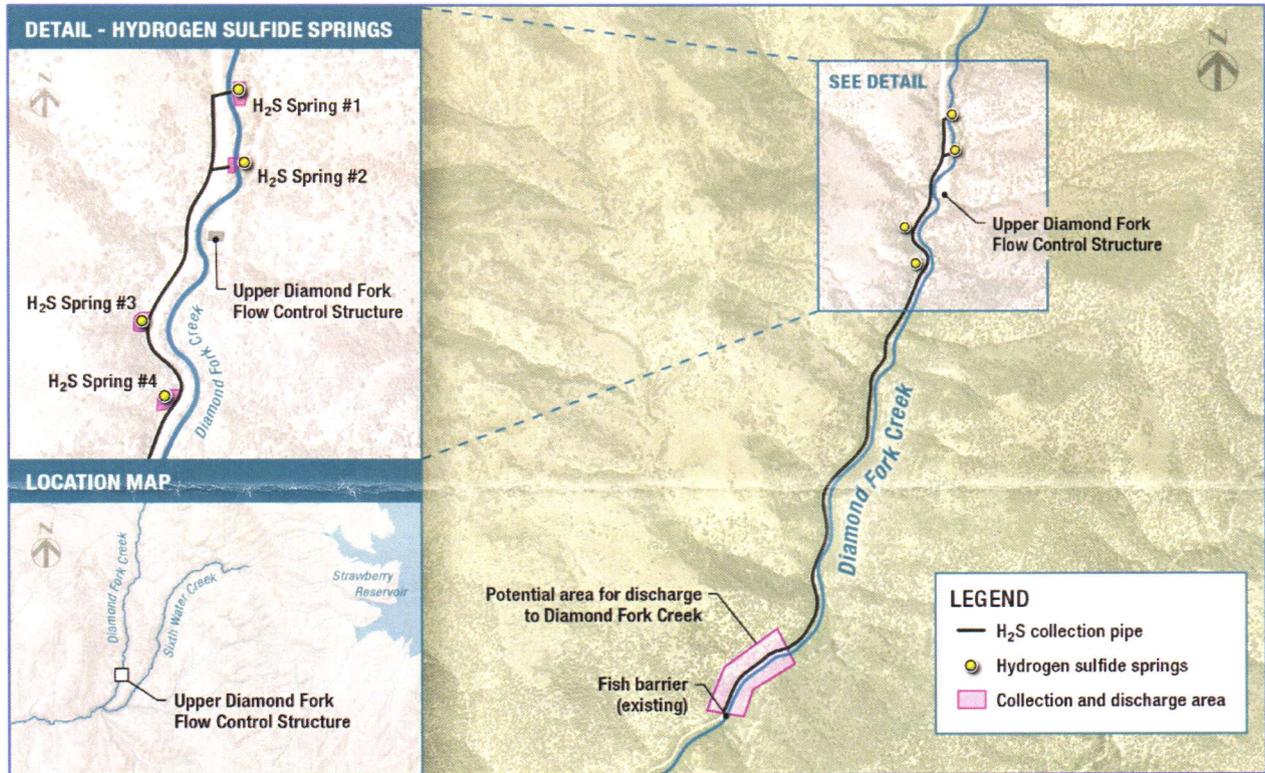


Figure 3. Hydrogen sulfide springs.

HYDROGEN SULFIDE SPRING ALTERNATIVE TO BE EVALUATED

The JLAs propose to remove hydrogen sulfide gas from the vicinity of the UDFFCs by installing spring collection–type boxes at each spring to collect the flow and route it into a single underground pipe that would run roughly 1 mile downstream before discharging into Diamond Fork Creek (see Figure 3).

SCOPING INFORMATION

The JLAs are seeking comments and input from the public and agencies regarding the proposed action.

Comments on the Diamond Fork System Environmental Update must be submitted by Friday, April 24, 2020. Comments may be submitted by mail, email, or the project website.

CONTACT INFORMATION

Project Manager: Sarah Sutherland

Website: <https://cuwcd.com/diamondfork.htm>

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