

From: [Harden, Tasha](#)
To: [Fernandez, Juliette](#)
Subject: Re: Site visits
Date: Friday, January 17, 2020 12:43:02 PM
Attachments: [Impacts 01-17-20.doc](#)

I put it all in a word doc. Let me know if you need anything else.
Have a good long weekend!

On Fri, Jan 17, 2020 at 11:48 AM Harden, Tasha <tasha_harden@fws.gov> wrote:
Yep I sure can- I'll get it to you in a bit

On Fri, Jan 17, 2020 at 11:45 AM Fernandez, Juliette <juliette_fernandez@fws.gov> wrote:
Thank you so much for the info. Would you be able to consolidate Bill's comments into yours?

Juliette Fernandez

Refuge Supervisor AZ/NM

505-248-6650 Office
505-933-3501 Cell
505-248-6460 Fax

U.S. Fish and Wildlife Service
P.O. Box 1306, Room 4112
Albuquerque, NM 87103-1306

[Region 6.7.8 Connects](#)

On Fri, Jan 17, 2020 at 11:43 AM Harden, Tasha <tasha_harden@fws.gov> wrote:
Yes, I'm here.

On Fri, Jan 17, 2020 at 11:14 AM Fernandez, Juliette <juliette_fernandez@fws.gov> wrote:

Are you in today?

Juliette Fernandez

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----- Forwarded message -----

From: **Bill Radke** <bill_radke@fws.gov>

Date: Thu, Jan 16, 2020 at 7:35 PM

Subject: Fwd: Site visits

To: Juliette Fernandez <juliette_fernandez@fws.gov>

Cc: Tasha Dolgoff <tasha_harden@fws.gov>

Juliette; Additional information from Tasha. Thank you, Bill Radke

William R. Radke; Project Leader

U.S.Fish and Wildlife Service

Buenos Aires, Leslie Canyon, & San Bernardino NWRs

Cell: 520 508-7180

Begin forwarded message:

From: "Harden, Tasha" <tasha_harden@fws.gov>

Date: January 16, 2020 at 2:31:31 PM MST

To: "Radke, Bill" <bill_radke@fws.gov>

Subject: Re: Site visits

I'm sure you can improve upon this- but hopefully this helps!

Impacts on refuge riparian area Black Draw:

- Past:
 - During the Nov/Dec heavy rain events, Black Draw experienced 2 large flash flood events. These natural events were altered by the temporary crossing at the time which was constructed of dirt and 2 large culverts. The flood water was dammed up by the crossing and the water back flooded onto the refuge.
 - As water slowed and back flooded onto the refuge large sediment deposits were dropped in areas where they normally don't deposit.
 - Large trees that once stood in this area were found fallen
 - Huachuca water umbel that was located in Black Draw was not found after the flood events.
- Current:
 - Current temporary crossing consist of a raised concrete structure with one elevated large culvert. Any water that would naturally flow south unobstructed now gets pooled up on the refuge until it is high enough to flow through the culvert.
- Potential
 - (b) (5)

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Impacts on endemic (only found in one place) spring snail population:

- Current:
 - One population exists in goat tank (a concrete spring box sunk in the ground and fed by house pond).
 - Depth to groundwater at the spring snail well has increased from 32 feet on 11/8/19 to 34.31 on 01/13/20, meaning that the water is getting further away from the surface.
 - Re-establishing snails at the spring snail well site was in refuge plans, but due to the water level getting deeper in the well that plan is no longer going to be pursued.
- Potential
 - (b) (5)
 - (b) (5)
 - (b) (5)

On Thu, Jan 16, 2020 at 12:56 PM Harden, Tasha

<tasha_harden@fws.gov> wrote:

No worries, I can send you something here in a few.

On Thu, Jan 16, 2020 at 12:37 PM Radke, Bill <bill_radke@fws.gov> wrote:

Tasha; Sorry for my delay in answering. Please remember where I am today. IF you are still able to provide me some draft bullet points as Juliette requested, that would be huge. If you are already booked with other issues, I understand. Bill

On Thu, Jan 16, 2020 at 8:23 AM Harden, Tasha <tasha_harden@fws.gov> wrote:

Bill, If you need me to work on drafting bullet points as Juliette requested of BD and the snails, I can send you a draft today. Also- the February Dates that Aarona and Amy suggested overlap the days that the snail people will be out, just FYI in case you want to give Juliette the heads up on that.

On Wed, Jan 15, 2020 at 4:50 PM Fernandez, Juliette <juliette_fernandez@fws.gov> wrote:

Hi guys,
So I think I'll still come next Wed-Fri. Julie McIntyre will come and others may too.
I've been briefing up to Aaron and Amy and invited them but they can't come until February 12-14. I'll let you know as I hear more but hopefully those dates work for you.

In other news, I had a call with CBP last week to tell them we are analyzing data but gave them predictions on the report of findings that we are pulling together. Call me if you want to discuss further.

I spoke with the Corps yesterday about the temporary crossing at Black Draw. I sent you an email but if you guys can send me some bullets on the current and potential impacts from the current design as well as some on the spring snail population I will get that off right away.

I had a few conversations with Brent this week and one about 10 minutes ago about the significance of our concern. He is with CBP and the corps and said if we can send talking points of some of the greatest impacts we are seeing currently, he will bring it up. I think whatever we can do, we should give it a try.

I speak my peace but whatever you can give me will help strengthen my conversations.

Thanks always,

Juliette Fernandez
Refuge Supervisor AZ/NM

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Impacts on refuge riparian area Black Draw:

- Past:
 - During the Nov/Dec 2019 heavy rain events, Black Draw experienced 2 large flash flood events. These natural events were altered by the temporary crossing at the time, which was constructed of dirt and 2 large culverts. The flood water was dammed up by the crossing and the water back flooded onto the refuge, until the crossing failed and the culverts were washed about 70 yards downstream into Mexico (where they remain).
 - As water slowed and back flooded onto the refuge large sediment deposits were dropped in areas where they normally don't deposit.
 - Large trees that once stood in this area were found fallen.
 - Huachuca water umbel that was located in Black Draw was not found after the flood events.
- Current:
 - Current temporary crossing consist of a raised concrete structure with one elevated 36" culvert and rip-rap rock. A single 36" culvert is inadequate in allowing suitable passage of stream flow, and will not withstand a flood flow.
 - Concrete used in the construction process is a potential problem to aquatic species because concrete is known to leach a variety of toxins for several months during the curing process.
 - The source of rip-rap rock associated with the crossing is unknown. The Service should have the opportunity to evaluate the acceptability of the rip-rap rock and other material pertaining to potential contaminants or contaminant by-products (such as mine tailings) that could leach into the watershed.
 - No storm water prevention procedures were implemented during or after construction. Loose soil associated with construction of the crossing will erode into Black Draw, affecting water quality.
 - Increased sedimentation reduces water clarity, destroys benthic food sources, damages fish spawning sites, and leads to unnatural stream aggradation. Fine sediments in wetlands can reduce oxygen availability to fish eggs and increase embryo mortality, can impact the function of gills in fish and other aquatic organisms, and can ultimately cause suffocation. (Silt in the water kills fish, both in the short term and in the long term).
 - Stream connectivity has been stopped. It is positioned above the current level of the stream, preventing the natural flow of water. Any water that would naturally flow south unobstructed now gets pooled up on the refuge until it is high enough to flow through the culvert. Once it is able to flow through the culvert water falls several feet down to a steep slope of rock rip-rap before it reaches the existing stream bed.
 - The 36" elevated culvert impedes fish passage.
 - Fish cannot travel upstream as they have for decades. Any fish ultimately able to flow downstream through the culvert during a flood flow will experience a significantly increased unnatural velocity (like a water slide) and then plunge at high velocity onto the downstream rocks, ensuring their death.
- Potential
 - (b) (5)

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