From: Hoskin, Sumalee
To: Stanhope, Jennifer
Cc: Tiernan Lennon
Subject: Re: MVP Conference BA Questions
Date: Tuesday, June 27, 2017 2:06:15 PM

Jen,
Not sure if you checked the VAFO spreadsheet, but no species that I'm POC. I'm not sure about the aquatics like Ashy Darter, long solid mussel, and pink pigtoe? I don't know where they occur. Rose and Jordan are the VAFO POCs. And Cindy mentioned Hellbender, not sure if the pipeline will overlap with occurrences/habitat.
Sumalee

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On Thu, Jun 22, 2017 at 5:11 PM, Stanhope, Jennifer <jennifer_stanhope@fws.gov> wrote:

> Hi Tiernan and Sumalee,
>
> Are there other species they should consider including?
>
> Jen
> ---------- Forwarded message ----------
> From: **Stahl, Megan D.** <MStahl@eqt.com>
> Date: Thu, Jun 22, 2017 at 4:34 PM
> Subject: MVP Conference BA Questions
> To: Jennifer Stanhope <jennifer_stanhope@fws.gov>
> Cc: Taina Pankiewicz <TPankiewicz@envsi.com>
>
> Jen,
>
> As I mentioned on the phone, MVP is currently preparing a conference Biological Assessment (BA) through Section 7(a)(4) to determine the potential impacts of the MVP Project on candy darter (*Etheostoma osburni*) and yellow lance (Elliptio lanceolata) and we have several questions.

1. Are there any other species that USFWS recommends including in the document?

2. Should MVP prepare separate documents for each species or can the species be included in one document?

3. Can you provide guidance on the consultation process?

    a. Does the informal consultation on the conference document result in a clearance letter from USFWS?

    b. When the species becomes officially listed then is a new BO issued or will the project BO be amended?

    c. What is the timeframe for the BO (or BO amendment) to be issued?

    d. In the meantime, would all project construction need to be put on hold, or for example if only aquatic species were involved then would only activity in the potentially impacted streams need to be put on hold?

4. Specifically related to the candy darter:

The federal listing of candy darter is currently under review by USFWS and a proposed listing decision is anticipated by Sept. 30, 2017. The proposed MVP project bisects the distributional range of the species in West Virginia and Virginia. The species is likely to occur in several different watersheds intersected by the proposed project (e.g., Sinking Creek-New River, Wolf Creek-Greenbrier River, Headwaters Gauley River, and Outlet Gauley River) with varying densities/likelihood of occurrences.

Occurrence records for the species are available from a variety of sources, including, but not limited to: Burton and Odum (1945), Hocutt et al. (1978, 1979), Chipps et al. (1993), Leftwich et al. (1996), Welsh et al. (2006), Burns (2007), Hitt and Roberts (2012), Dunn (2013), Gibson (2017), NEDEQ (2017), UMMZ (2017), VADEQ (2017), VIMS (2017), and WVDEP (2017). Preliminary summarizations of these sources provides 742 distinct fish collections occurring within the historic range of candy darters (i.e., Gauley, Greenbrier, Middle New, and Upper New subbasins) with 164 fish collections containing one or more candy darters. However, much of the information available is not contemporary but rather represents historic fish distributions (e.g., Burton and Odum [1945]).

More recent collection efforts suggest that within Virginia, the species has declined in much of the historic range (Jenkins and Burkhead 1994). Furthermore, within West Virginia, the species has hybridized with the variegate darter (*Etheostoma*

variatum) throughout the Gauley, Greenbrier, and New river drainages (below Bluestone Dam; Gibson 2017). According to Gibson (2017), even populations above Summersville Dam (a hypothesized barrier of the hybridization spread) demonstrate evidence of introgressive hybridization (although pure candy darters still exist upstream of Summersville Dam). According to Angermeier and Pinder (2015), variegate darters or suspected hybrid individuals have not been reported within the New River drainage of Virginia, but it is unknown if the populations in Indian Creek (within West Virginia) remain pure.

Given the above information, MVP is seeking guidance from the USFWS on how to determine occurrence and abundance estimates for candy darters. More specifically, several questions arise:

a. Does the USFWS have any recommendations on where to assume presence for the species?

b. Should all historical occurrences of the species be incorporated into the assessment or does the USFWS consider surveys to be historical after a certain date?

c. How should populations that have been potentially subjected to hybridization with variegate darters be treated?

d. Is the USFWS aware of any studies that have quantified capture rates of candy darters (e.g., mark-recapture studies) that may provide information on how to estimate abundance given observed capture?

e. Is the USFWS aware of any recent captures of candy darters or fish assemblage collections conducted within Indian Creek?

In addition, because the species is currently under review for federal listing, in order for the conference BA to be appropriately “ready” to become a genuine BA, with an appropriate BO, in a timeline appropriate to avoid delay for the project, will the document require a quantified estimate of take or only a determination about whether the project is likely to cause jeopardy for the species?

Any guidance you can provide is greatly appreciated.

Thank you,

Megan

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