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Submitted online at: <https://cara.fs2c.usda.gov/Public/CommentInput?Project=64529>

RE: Hassayampa River Minerals Withdrawal

Please accept these comments on behalf of the undersigned organizations in response to the *Environmental Assessment for Withdrawal of 3,739 Acres of the Hassayampa River Riparian Corridor* (hereafter, “EA”). On behalf of our collective memberships, and for reasons detailed below, our organizations strongly support the purpose and need for the proposed mineral withdrawal on approximately 3,739 acres encompassing the Hassayampa River on the Prescott National Forest. We urge the Prescott National Forest, Bureau of Land Management, and Secretary of the Interior to take swift action to effectuate the withdrawal.

On September 11, 1997, the Prescott National Forest’s Geologist, Beverley Everson, wrote the following in a Mineral Potential Report addressed to the Regional Geologist, Roger Marion:

The natural environment of the upper Hassayampa River corridor is more valuable for its beauty and richness of botanical and wildlife species than for any mineral resource. Withdrawal of these lands from mineral entry is appropriate, considering their high nonmineral resource value and low potential for mineral development.

Here we are, 28 years later, and these words are as true as ever. The protection of the Hassayampa River’s riparian ecosystem and surrounding watershed is paramount as we face numerous converging ecological crises combined with growing public demand for access to natural open spaces and clean water. What also remains unchanged is the Hassayampa’s marginal value for mineral production, with the river being considered fully exploited long ago. In fact, the Forest Service states in the EA (at page 28) that “much of the area’s known deposits [have] already been developed and extracted in the past.”

We welcome the Prescott National Forest’s intention to protect the upper Hassayampa from the impacts of mineral prospecting and development. We encourage the BLM and USFS to quickly and efficiently complete the process of establishing the proposed withdrawal, which as we will show below, is very much warranted, and is in fact necessary in order to accomplish the objectives of the Land and Resource Management Plan for the Prescott National Forest (hereafter, “Forest Plan”).

In addition to our expression of support for the proposed withdrawal, this letter contains detailed comments responding to specific aspects of the EA. We hope the Forest Service finds these comments useful, and addresses them in preparation of any subsequent NEPA documents. As a courtesy, we have included a checklist of the specific changes we would like to see made in any subsequent NEPA document.

I. Background

The Prescott National Forest has filed an application with the Bureau of Land Management to withdraw 3,739 acres of National Forest System lands from location and entry under the U.S. mining laws, and from leasing under the mineral and geothermal leasing laws, for a 20-year term, subject to valid existing

rights.¹ The proposed withdrawal would “protect the Hassayampa River Riparian Corridor, located in Yavapai County, Arizona, from potential adverse impacts from mining, mineral, and geothermal leasing,”² and “conserve and protect the lush riparian vegetation along the drainage, and to protect sensitive wildlife species and their habitat.”³

The proposed 3,739-acre withdrawal follows the unfortunate expiration of a previous, and highly successful, 20-year withdrawal that encompassed 1,677.25 acres along the Hassayampa River, established on October 12, 1999 in Public Land Order No. 7414,⁴ which expired on October 12, 2019. Since the previous withdrawal expired, at least 20 new placer claims have been filed on the Hassayampa and its tributaries, threatening the riparian ecosystem recovery made over the previous 25 years. Establishing a new and expanded withdrawal is needed to provide a framework for protecting sensitive resources that are at immediate risk of degradation – especially under the ongoing and severe drought which has left much of the river dry. These comments specifically address the EA, which was released for public review on December 17, 2024.

The EA (page 7, section 2.2) states that “The Forest Service would retain administrative jurisdiction of the WAA [Withdrawal Application Area] and would continue to manage the land in accordance with the *Prescott National Forest Land Management Plan*.” It then cites “Forest Service 2024.” We are unclear what the 2024 document is that is being cited. The same error occurs on page 10 and 29 of the EA. If the citation is to refer to the Forest Plan, the year needs to be corrected. The EA also states that the project is not subject to the pre-decisional administrative appeal process, however, the project webpage states that an objection period will start on 2/2025 (estimated). The webpage should be corrected to clarify that there will be no objection period. For example, the Black Hills National Forest correctly filled out the project milestone for the Pactola Reservoir - Rapid Creek Watershed Withdrawal by filling the appropriate box with an “N/A.”⁵

II. Ecological Significance and Wildlife of the Hassayampa River

The Hassayampa River originates at a spring on the northwestern slopes of Mount Union, the highest summit in the Bradshaw Mountains on the Prescott National Forest. The river course is approximately 113 miles long, trending west then south, and ultimately joining the Gila River west of Phoenix, though the lower reach is usually dry. The river is a mix of perennial and intermittent reaches, beginning in mixed conifer forest and ending in low Sonoran Desert. The river is highly varied in vegetation, terrain, and land use, starting as a cold mountain creek in the Prescott National Forest, passing through a broad agricultural valley dotted with farms and ranches, slicing through the rugged Hassayampa River Canyon Wilderness area, and through a beloved urban park at the Hassayampa River Preserve, managed by Maricopa County and The Nature Conservancy.

The portion of the river proposed for withdrawal includes the upper reach, from Hassayampa Lake to Board Creek, excluding private lands therein. This segment exhibits the unique biodiversity of central Arizona’s transition zone between the Basin and Range and Colorado Plateau physiographic provinces.

¹ Federal Register (2023). Notice of Withdrawal Application and Opportunity for a Public Meeting for the Prescott National Forest/Hassayampa River, Arizona. Federal Register Vol. 88, No. 108, 37088. Washington D.C.: Department of the Interior, Bureau of Land Management.

² *Id.*

³ USDA Forest Service. 2024. Environmental Assessment for Withdrawal of 3,739 Acres of the Hassayampa River Riparian Corridor. Available online at: <https://usfs-public.app.box.com/v/PinyonPublic/folder/218830897480>

⁴ Federal Register (1999). Public Land Order No. 7414; Withdrawal of National Forest System Land for Hassayampa River Riparian Corridor; Arizona. Federal Register Vol. 64, No. 196, 55305. Washington D.C.: Department of the Interior, Bureau of Land Management.

⁵ <https://www.fs.usda.gov/project/?project=63876>

Often, this ecoregion is called the Central Highlands, or more recently, the Mogollon Highlands. A recent scientific publication describes the significance of this region as follows (citations omitted for clarity):

The Mogollon Highlands represents an interfingering of 11 of the 26 biotic communities in the southwestern United States and northwestern Mexico (southern Utah to northern Sinaloa, Pacific Coast to New Mexico). It supports five of the North American life zones described by Merriam. Arizona has the third highest plant species richness of any state, and because of the broad ecotonal nature of the Mogollon Highlands, much of this plant diversity can be found here. The regional diversity is amplified even more due to punctuation by linear ribbons of riparian forest—one of the highest productivity habitats in North America. These lush green corridors concentrate wildlife, and include some of the highest biodiversity sites in North America.⁶

The Hassayampa River is an outstanding example of one of the “linear ribbons of riparian forest” described by the authors as significant for wildlife and biodiversity. It is for this reason that the stream was originally withdrawn in 1999. In addition, other past decisions have been implemented to reduce the impact of livestock grazing on riparian resources, but those details are inadequately covered in the EA. Under Section 3.1, Biological Resources, the EA simply states that “Livestock grazing in the project area has occurred over the last century.” It would be appropriate for the EA to add that grazing has not been authorized within the withdrawal application area for a very long time. The upstream portions of the withdrawal application area are within the Prescott Municipal Watershed, which has been excluded from livestock grazing since a 1924 agreement with the City of Prescott. The remaining portion of the withdrawal application area has been excluded from grazing since 1998, when the Forest Service decided to “discontinue grazing in the North Unit of the Maverick Allotment and the Palace Unit of the Crooks Canyon Allotment (roughly 21,700 acres).”⁷ Additional explanation of this can be found in the current Forest Plan, at pages 130-132. These details are important to include as the current sentence regarding grazing is misleading and insufficient.

Other important high-level details in the EA are incorrect. Under Section 3.1, Biological Resources, the EA states that “elevations range from 5500-7500 ft. above sea level.” This is not correct. The lowest point of the proposed withdrawal along the Hassayampa River near the Board Creek confluence is at approximately 4,720 feet above sea level. Also under Section 3.1, Biological Resources, the EA states: “The WAA is located within the “Prescott Basin” area of the PNF. The project area occurs on the Bradshaw Ranger District of the Prescott National Forest.” Since the proposed withdrawal is not technically a “project,” this should be re-written as follows: “The WAA is located within the “Prescott Basin” area of the PNF, on the Bradshaw Ranger District of the Prescott National Forest.” These details should be corrected in any subsequent NEPA document.

We appreciate the Forest Service listing yellow-billed cuckoo as an affected species in the EA. The Prescott National Forest had previously not recognized this Threatened bird as occurring on the upper Hassayampa River until public comments supplied photos and site descriptions of nesting cuckoo’s just downstream of the proposed withdrawal area, within the analysis area for the proposed Riverbend Placer Mine.⁸ Following those reports, the Prescott National Forest undertook field surveys and verified the public reports, ultimately resulting in the project being put “on hold” to this day. This illustrates the

⁶ Fleischner, Thomas, David Hanna, and Lisa Floyd-Hanna. 2017. A Preliminary Description of the Mogollon Highlands Ecoregion. The Plant Press. Fall 2017. Arizona Native Plant Society.

⁷ USDA Forest Service. 1998. Decision Notice and Finding of No Significant Impact. Crooks Canyon/Maverick Ecosystem Management Project Livestock Grazing Management. Signed by District Ranger Ernest Del Rio, September 30, 1998. Available online at: <https://azgrazingclearinghouse.org/wp-content/uploads/CrooksMaverick-decision-093098.pdf>

⁸ Letter from Joe Trudeau to Prescott National Forest leadership and resource staff, dated August 14, 2020.

importance of public involvement and our “eyes on the ground.” We hope that the Forest Service will afford similar attention to the comments provided in this letter.

The Forest Service Sensitive Species portion of Section 3.1 of the EA contains significant errors that are important to correct. First, the section provides a list of species for the *Kaibab* National Forest – which is obviously not the proper analysis area. As a result, the EA provides an incomplete list of Forest Service Sensitive Species for the Hassayampa River riparian corridor. Specifically, this list is missing the following Forest Service Sensitive Species which are known to occur within the proposed withdrawal:

- Desert sucker (*Catostomus clarki*): this species is listed as occurring in the Upper Hassayampa River in the Prescott National Forest’s 2009 Ecological Sustainability Report.⁹ Furthermore, and in support of the proposed withdrawal, the Forest Service has stated that “Placer mining ... in the Hassayampa, Big Bug Creek, and Turkey Creek drainages ... is an example of the type of activity that is contributing to degradation of desert sucker habitat.”¹⁰
- Arizona toad (*Bufo microscaphus*): this species is listed as occurring in the Upper Hassayampa River in the Prescott National Forest’s 2009 Ecological Sustainability Report, and has been observed by ecologists over multiple recent years along the Hassayampa downstream of the confluence with Indian Creek.
- Common black hawk: the species is occasionally observed along the Hassayampa, which provides preferred riparian forest habitat for the bird.
- Three USFS Sensitive plant species are known to occur along the upper Hassayampa River: Mt. Dellenbaugh Sandwort (*Arenaria aberrans*), Eastwood Alum Root (*Heuchera eastwoodiae*), and Broadleaf Lupine (*Lupinus latifolius* ssp. *Leucanthus*). Collections of these species have been made by botanists and are available for viewing at the Natural History Institute, 126 N. Marina St., Prescott, AZ 86301.

We request that these errors and omissions are corrected in any future NEPA documents.

III. Environmental Consequences of Mining on the Hassayampa River

The Prescott National Forest’s 2009 Ecological Sustainability Report, which was prepared to inform the revision of the Forest Plan, stated that “historic and present mining and dredging are directly impacting riparian resources and water quality”¹¹ on the Upper Hassayampa River. The report further described these disturbances as follows:

Starting with placer mining in streams, many stream channels were altered with sluicing and hydraulic mining – using high powered streams of water to break down alluvial banks and direct them into various sluices and rocker boxes in order to sort out the small volume of valuable minerals, with gold being the first attractant. Subsequently mining with shafts, adits, and small mills became more common, with associated piles of waste rock and tailings.¹²

As we said earlier in this letter, much of the area proposed for withdrawal was previously withdrawn from 1999 to 2019. The harmful effects of placer mining, dredging, and prospecting have increased since 2019.

The 1998 Environmental Assessment which analyzed the previous withdrawal stated that:

The river is an historical producer of “placer” gold and has in the past couple of decades become a popular area for “recreational” gold mining, which impacts both the stream and the surrounding

⁹ USDA Forest Service. 2009. Prescott National Forest Ecological Sustainability Report.

¹⁰ USDA Forest Service. 2015. FEIS for the Prescott NF Land and Resource Management Plan. Volume 1. At page 152.

¹¹ U.S. Forest Service. 2009. Prescott National Forest Ecological Sustainability Report. At page 85

¹² *Id.* at page 36

banks. The cumulative effects of the mining and other types of use of the river corridor have resulted in dramatic degradation of the area, especially when compared with nearby stretches of the river passing through relatively inaccessible private land tracts.¹³

The current EA continues to document this tragic story of degradation, as it provides detailed descriptions of the impacts of mining on the Hassayampa's riparian ecosystem, wildlife, and human uses. We appreciate the inclusion of thoughtful descriptions such as found in the section on Land Use, which provides very well-formulated descriptions of the direct and indirect impacts of the no-action alternative (status quo management) on riparian resources and other land uses. However, the Environmental Consequences section (at page 26), while not inaccurate, was essentially copied from the 1998 EA¹⁴, so it is lacking a thorough description of the environmental impacts of continued (or expanded) mining on the Hassayampa River.

Since the time that the 1998 EA was written, "recreational" mining has evolved to utilize more damaging suction dredge systems as technological advances have resulted in lighter and more portable dredge units, including complex systems that float on the water. The numerous impacts of suction dredge mining on aquatic ecosystems and wildlife have been well documented in the scientific literature, though are lacking in the EA.¹⁵ Some suction dredge impacts that the EA fails to mention include:

- Direct mortality from fish, amphibians, and macroinvertebrates being sucked into dredge pumps.
- Increased turbidity of water with attendant degradation of aquatic habitat and water quality.
- Danger posed to wildlife and human visitors by unfilled holes and unstable tailing piles.
- Altering bird behavior, movement, distribution, and reproduction, including nest abandonment.
- Introduction of lights, noise, exhaust, and fuel spills into the stream and riparian corridor.

These impacts should be added to the Environmental Consequences section in any subsequent NEPA document.

In addition, concerns with mercury release are more understood than in the past. A particular concern for the Hassayampa River is heavy metal accumulation in aquatic habitat brought about by disturbance of sediments. We are pleased that the EA recognizes the risk of heavy metal releases associated with mining. Suction dredge placer mining, in particular, mobilizes toxic heavy metals naturally present or deposited in deep streambed sediments by past mining activity. Methylated mercury has a high potential for poisoning fish and other species that eat fish or other aquatic organisms, and it also impacts fish behavior, health, and reproduction. Effects of heavy metals in the environment can include "a decrease in aquatic reproductive capacity, respiratory and neurological problems, etc., and also due to its accumulation in the body (bioaccumulation) and their transmission to subsequent consumers, including humans, can have side effects."¹⁶

The U.S. Forest Service has documented that mercury and other heavy metals are released from streambed sediments during suction dredge and high banking mining activities,¹⁷ and the California State Water Resources Control Board has stated that

¹³ U.S. Forest Service. 1998. Environmental Assessment: Hassayampa River and Recreation Area Mineral Withdrawal.

¹⁴ U.S. Forest Service. 1998. Environmental Assessment: Hassayampa River and Recreation Area Mineral Withdrawal. Bradshaw Ranger District, Prescott National Forest. See pages 14-15.

¹⁵ Cascadia Wildlands. 2018. Regulation Considerations for Suction Dredge Placer Mining. Cascadia Wildlands, Eugene, OR; American Fisheries Society. 2013. Effects of Suction Dredge Mining on Oregon Fishes and Aquatic Habitats. Oregon Chapter of the American Fisheries Society, Portland, OR.

¹⁶ Vajargah, M.F. 2021. A review on the effects of heavy metals on aquatic animals. J Fish Res 5(5):22-26.

¹⁷ USDA Forest Service, Rogue River-Siskiyou National Forest (USFS). 2015. Suction Dredging and High Banking Operations for Notices of Intent within the Rogue River-Siskiyou National Forest. Biological Assessment.

Recreational suction dredging as a whole has a disproportionately greater effect on mercury resuspension when compared to other natural events or human activities. Suction dredging operators often target deep sediments, resulting in mobilization of mercury that may not be mobilized by typical winter high-flow events.¹⁸

We are pleased to see the statement in the EA (at page 9) that “The release of contaminants such as heavy metals into the environment could adversely affect wildlife and wildlife habitat, including wetlands, though the magnitude, duration, and severity of effects depend on the location and characteristics of a release.” As the Final EA is completed, we encourage the Forest Service to clearly articulate the risk that suction dredge mining poses to wildlife, human use, geomorphology, and watershed integrity.

IV. Regulatory Framework of the Hassayampa Mineral Withdrawal

The proposed withdrawal would help to protect water resources, wildlife, recreation, scenic values, public health and safety, and the economy. The 2015 Forest Plan Environmental Impact Statement established that a primary need for the Prescott National Forest was to “Retain or improve watershed integrity to provide desired water quality, quantity, and timing of delivery.” That document specifically cited the Hassayampa River, stating:

there is a need to improve the health of these watersheds and continue to maintain the health of those in good condition in order to provide: water quality for human health and safety; water quantity for municipal demands and the maintenance of aquatic and riparian habitat; and timing of water delivery that is consistent with healthy soils, biological processes, and natural geomorphology.¹⁹

The purpose of the now-expired withdrawal, as expressed in the 1998 EA, was to “provide resource protection for” and “restore the natural environment of the Hassayampa River.” The Forest Supervisors Decision Notice concluded that the previous withdrawal “best implements the Forest Land Management Plan and other direction for managing natural resources on the Prescott National Forest.”²⁰ As with the expired withdrawal, we believe the proposed withdrawal is the best way to implement the Forest Plan. Making a clear and compelling argument for *how* the withdrawal implements the Forest Plan will present the deciding official with a clear choice. However, the EA inadequately connects the proposed withdrawal to management objectives in the Forest Plan.

The sections on watersheds (EA pages 16-18) are important to include, but other equally important plan components are essential to tie the proposed withdrawal to. For example, the EA should absolutely recognize that the Forest Plan states that “Adverse effects to aquatic and other riparian dependent resources from mineral material operations should be avoided.”²¹ Implementing the proposed withdrawal will be a major step towards achieving that guideline.

In describing the proposed withdrawal’s conformance to the current Forest Plan, the EA states the following (at page 16):

Management Areas involved with this project include Prescott Basin and Williamson South. All management areas located within the project area have desired conditions and standards and guidelines focused on reducing or preventing recreational impacts to watershed related resources

¹⁸ Letter from Thomas Howard (California State Water Resources Control Board) to Charlton Bonham (California Department of Fish and Wildlife), dated March 11, 2013.

¹⁹ U.S. Forest Service. 2015. Final Environmental Impact Statement for the Prescott National Forest Land and Resource Management Plan, Volume 1. At page 4.

²⁰ U.S. Forest Service. 1998. Decision Notice and Finding of No Significant Impact: Hassayampa River and Recreation Area Mineral Withdrawal. Bradshaw Ranger District, Prescott National Forest.

²¹ USDA Forest Service. 2015. Prescott National Forest Land and Resource Management Plan. At page 92.

and do not mention mining. **Therefore, the Standards and Guidelines for the Management Areas do not pertain to the Hassayampa Withdrawal Project.** (emphasis added)

While this is true, the statement is somewhat of an error-by-omission. The Final EA should add a statement affirming that the Forest Plan’s Desired Conditions for the Williamson Valley South Management Area contains the following plan component:

“DC-WVS-MA-3: Impacts to ecology and water resources are uncommon. The Hassayampa River and the area along Copper Basin Wash support healthy, properly functioning riparian areas, are trash free, and show few natural resource impacts due to recreation use.”²²

As described thoroughly in the EA, the proposed withdrawal will have meaningful benefits to the Hassayampa River, including reducing impacts to *ecology and water resources*, resulting in a *healthy and properly functioning riparian area*. Furthermore, some of the mining activity within the proposed withdrawal occurs at recreational levels. The EA recognizes this (at page 26) in stating that “Recreational placer mining on the Hassayampa River and tributaries accelerates erosion and sedimentation and impacts riparian vegetation... The banks of the river are also impacted by recreational mining, primarily through foot, OHV, and car and truck traffic that bares the ground of vegetation and accelerates erosion.” Considering these points, the desired condition above is relevant to the purpose of the withdrawal, as mining related *recreation* has significant natural resource impacts.

Any subsequent NEPA document should explain how the withdrawal would make progress towards DC-WVS-MA-3.

V. Checklist of requested changes, additions, and corrections

- ☐ Correct spelling of Hassayampa on cover of Environmental Assessment (spelled “Hassyampa”).
- ☐ Correct year when citing Forest Plan as “Forest Service 2024.”
- ☐ Change webpage to list “N/A” under objection period timeline.
- ☐ Change elevation under Section 3.1, Biological Resources, to “4720-7500 ft. above sea level.”
- ☐ Under Section 3.1, Biological Resources, change “The WAA is located within the “Prescott Basin” area of the PNF. The project area occurs on the Bradshaw Ranger District of the Prescott National Forest” to “The WAA is located within the “Prescott Basin” area of the PNF, on the Bradshaw Ranger District of the Prescott National Forest.”
- ☐ Correct Forest Service Sensitive Species at Section 3.1 to reflect species on the Prescott National Forest (currently listed as Kaibab), and add Desert sucker, Arizona toad, Common black hawk, Dellenbaugh Sandwort, Eastwood Alum Root, and Broadleaf Lupine
- ☐ Under Section 3.1, Biological Resources, add details on current livestock grazing closures per the 1998 Crooks-Maverick decision and the Prescott Municipal Watershed agreement.
- ☐ Section on Regulatory Framework should connect the proposed withdrawal to the following Forest Plan Guideline to Minerals: “Adverse effects to aquatic and other riparian dependent resources from mineral material operations should be avoided.”
- ☐ Section on Regulatory Framework should connect the proposed withdrawal to the following Forest Plan Desired Condition: “DC-WVS-MA-3: Impacts to ecology and water resources are uncommon.

²² USDA Forest Service. 2015. Prescott National Forest Land and Resource Management Plan. At page 110.

The Hassayampa River and the area along Copper Basin Wash support healthy, properly functioning riparian areas, are trash free, and show few natural resource impacts due to recreation use.”

- ☐ Add more detail on impacts of suction dredge mining on the riparian ecosystem and the risk of heavy metal release.

VI. Conclusion

We thank you for the opportunity to express our support for the proposed withdrawal encompassing the upper Hassayampa River. Please do not hesitate to contact us for any reason, and we look forward to receiving notification of any future opportunities for public engagement.

Sincerely,

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