



April 1, 2021

*submitted via email*

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Re: Sunnyside Exploratory Drilling Project, Application for Permit (Public Notice/Application No.: SPL-2020-00103)

Dear U.S. Army Corps of Engineers,

Together, Defenders of Wildlife, Patagonia Area Resource Alliance, and Tucson Audubon Society submit the following additional attachments to our comments regarding the U.S. Army Corps of Engineers' (the "Army Corps") review of Arizona Standard's permit application for the Sunnyside exploratory drilling project ("SED Project" or "project").

#### Hermosa Project

- Arizona Department of Environmental Quality, Draft Statement of Basis for Major Modification of Arizona Pollutant Discharge Elimination System Permit No. AZ0026387 (2021), [https://static.azdeq.gov/pn/210205\\_azmin\\_sb.pdf](https://static.azdeq.gov/pn/210205_azmin_sb.pdf) [submitted as an attachment to our comment letter].
- Arizona Department of Environmental Quality, Draft Authorization to Discharge Under the Arizona Pollutant Discharge Elimination System Permit No. AZ0026387 (2021), [https://static.azdeq.gov/pn/210205\\_azmin\\_dp.pdf](https://static.azdeq.gov/pn/210205_azmin_dp.pdf) [submitted as an attachment to our comment letter].
- *See generally* Arizona Department of Environmental Quality, Public Notice & Public Hearing | Comment Period Extended | Proposed Modification of AZPDES Permit (AZ0026387) for Arizona Minerals Inc., <https://azdeq.gov/node/7802> (last visited Apr. 1, 2021).
- *See generally* U.S. Forest Service, SOPA: Plan of Operations, Minerals Exploration, Hermosa Drilling Project, <https://www.fs.usda.gov/project/?project=41158> (last visited Apr. 1, 2021). The plan of operations has not yet been uploaded for the project, but the description states: "Exploration and geotechnical drilling, monitoring well installation, and test trenching at 46 locations. Includes temporary access roads, overland travel, foot travel, road maintenance on existing roads, and well monitoring." *Id.* The Army Corps should consider the cumulative impacts of this project with those of the SED Project as more information becomes available.

San Antonio Project

- IC Exploration, LLC, Plan of Operations, San Antonio Exploratory Drilling Project, Santa Cruz County, Arizona (June 3, 2020), [https://www.fs.usda.gov/nfs/11558/www/nepa/114239\\_FSP\\_LT3\\_5343449.pdf](https://www.fs.usda.gov/nfs/11558/www/nepa/114239_FSP_LT3_5343449.pdf) [submitted as an attachment to our comment letter].
- Defenders of Wildlife, Patagonia, Area Resource Alliance, Sky Island Alliance, and Tucson Audubon Society, Comments in response to the September 2, 2020 scoping notice for the San Antonio Exploration Drilling Project, IC Explorations (Oct. 17, 2020) [submitted as an attachment to our comment letter].
- *See generally* U.S. Forest Service, SOPA: San Antonio Drilling Project, <https://www.fs.usda.gov/project/?project=58629> (last visited Apr. 1, 2021). The description states: “IC Exploration, LLC proposes exploration drilling will be undertaken at up to five (5) drill sites over an approximately 30-day period, with an additional 20 days used for mobilizing and demobilizing equipment and final reclamation.” *Id.* The Army Corps should consider the cumulative impacts of this project with those of the SED Project as more information becomes available.

As stated in our comment letter, the Army Corps must take into consideration the cumulative impacts of the SED Project (and any permitted activity) along with the nearby Hermosa and San Antonio projects on water resources, wildlife, and habitat in the project area. These documents are to be included in the record for your review on this matter.

Sincerely,



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Dear U.S. Army Corps of Engineers,

Together, Defenders of Wildlife, Patagonia Area Resource Alliance, and Tucson Audubon Society submit the following comments regarding the U.S. Army Corps of Engineers' (the "Army Corps") review of Arizona Standard's permit application for the Sunnyside exploratory drilling project ("SED Project" or "project").

Defenders of Wildlife is a nonprofit organization with nearly 2.2 million members and supporters nationwide that is dedicated to the protection of all native animals and plants in their natural communities. Defenders is committed to protecting wildlife and habitat in the Southwest, and has worked for years on issues in the Patagonia Mountain area of Arizona. Our Southwest office is located in Santa Fe, New Mexico, with staff in Tucson, Arizona.

Patagonia Area Resource Alliance ("PARA") is a grassroots organization of volunteer community members committed to protecting and preserving the Patagonia, Arizona area. It is a watchdog organization that monitors the activities of industrial developers such as mining corporations, as well as government agencies, to make sure their actions have long-term, sustainable benefits to our public lands, our watershed, and our regional ecosystem.

Tucson Audubon is a nonprofit organization, founded in 1949, serving Southeast Arizona with a mission to *Inspire people to enjoy and protect birds*. Tucson Audubon actively advocates for the protection of natural landscapes, biodiversity, and water resources. The organization is invested in Patagonia and the Sonoita Creek watershed through its stewardship of 7 acres of riparian habitat and management of the Paton Center for Hummingbirds, which receives 15,000 visitors annually from across the United States and the world. Tucson Audubon is headquartered in Tucson.

We appreciate the opportunity to submit comments on the permit application for the SED Project. Section 404 of the Clean Water Act ("CWA") regulates the discharge of dredged or fill materials into navigable waters. 33 U.S.C. § 1344. Arizona Standard submitted an application for a

permit pursuant to Section 404 of the CWA to discharge fill materials into four jurisdictional waters (Flux Canyon, Alum Gulch, Humboldt Canyon, and Harshaw Creek), which include wetlands and ephemeral waters of the United States. U.S. Army Corps of Engineers, Public Notice, Application for Permit, Sunnyside Exploratory Drilling Project (Public Notice/Application No.: SPL-2020-00103), at 1, [https://www.spl.usace.army.mil/Portals/17/Users/032/24/1824/20210226-SPL2020-103-PN.pdf?ver=M5rf6eHVf3kjcTxI4M\\_\\_fQ%3d%3d](https://www.spl.usace.army.mil/Portals/17/Users/032/24/1824/20210226-SPL2020-103-PN.pdf?ver=M5rf6eHVf3kjcTxI4M__fQ%3d%3d) [hereinafter Pub. Notice/Application No.: SPL-2020-00103]. Arizona Standard's Section 404 permit application falls significantly short of the required conditions for permit approval for the reasons discussed below and should be denied at this time.

**1. Arizona Standard has not obtained a Section 401 Certification.**

As a precondition to issuance of a Section 404 permit, an applicant must provide the Army Corps with a Section 401 certification. The CWA states that “[a]ny applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . .” 33 U.S.C. § 1341(a)(1). This certification, made by the state in which the discharge originates, declares that the discharge will comply with applicable provisions of the CWA, including state water quality standards. This certification is also required pursuant to the Army Corps’ Guidelines at 40 C.F.R. § 230.10(b)(1).

Arizona Standard submitted a request for a water quality certification to the Arizona Department of Environmental Quality (“ADEQ”) and to the best of our knowledge the agency is in the process of reviewing comments on the matter. Our comments on the Section 401 certification for the SED Project, which identified numerous deficiencies with the certification request, are attached to this letter and hereby incorporated into these comments.

**2. The application fails to comply with the Section 404(b)(1) guidelines.**

The CWA and the implementing Section 404(b)(1) Guidelines dictate the circumstances under which the Army Corps may permit discharges of dredged or fill material into wetlands or other waters. *See* 40 C.F.R. § 230. The Army Corps’ own regulations recognize that it must deny a Section 404 permit if the discharge for which a permit is sought would violate the Guidelines. 33 C.F.R. § 320.4(a)(1). Arizona Standard’s proposed permit violates the 404(b)(1) Guidelines for the following reasons.

**A. The Army Corps has failed to show the proposed SED Project is the least environmentally damaging practicable alternative (40 C.F.R. § 230.10(a)).**

Under the Guidelines, the Army Corps must deny a Section 404 permit “if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.” 40 C.F.R. § 230.10(a); *see also* Draft EA, at 2–3 (discussing Executive Order 11988: Floodplain Management, which requires that “agencies avoid, to the extent possible, adverse impacts associated with occupancy and modification of floodplains”; and Executive Order 11990: Protection of Wetlands, which requires that “agencies minimize destruction, loss, or degradation of wetlands

and . . . should avoid construction in wetlands unless it is determined that there is no practicable alternative”). “An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.” 40 C.F.R. § 230.10(a)(2). Practicable alternatives include activities and discharges which do not involve discharge of dredged or fill material into waters of the United States. 40 C.F.R. § 230.10(a)(1).

The practicability and alternatives analysis is included in Section 2.0 of the Draft Environmental Assessment (“Draft EA”). U.S. Forest Serv., Sunnyside Exploration Drilling Project, Draft Environmental Assessment, at 11–24 (Mar. 2021), [https://www.fs.usda.gov/nfs/11558/www/nepa/111128\\_FSPLT3\\_5599122.pdf](https://www.fs.usda.gov/nfs/11558/www/nepa/111128_FSPLT3_5599122.pdf) [hereinafter Draft EA]. However, this analysis is only a draft and has not yet been finalized. Further, Arizona Standard’s permit application (public notice) briefly mentions the alternatives analysis and specifically states that “[t]he overall project purpose serves as the basis for the Corps’ 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant’s goals for the project, and which allows a reasonable range of alternatives to be analyzed.” Pub. Notice/Application No.: SPL-2020-00103, at 3–4. Based on this project purpose description and/or the description of the proposed action, only two alternatives were considered in the Draft EA: helicopter-supported drilling from ridgetops and a no action alternative. Draft EA, at 23–24. This analysis as well as any other mention of alternatives in the Draft EA is inadequate as it fails to detail or even consider alternative road use or improvement options for the project, such as reducing the number of roads to be improved. Further, the no action alternative should be considered more fully as it would be in an Environmental Impact Statement, which we believe is appropriate for this project (see our forthcoming comments on the Draft EA, which we will email to you once submitted to the U.S. Forest Service (“USFS”) by April 5, 2021 and are incorporated by reference herein). Failure to include and consider other reasonable alternatives to the proposed action that will minimize environmental impacts of the proposed action is a violation of the Guidelines. *See* 40 C.F.R. § 230.10(a); *see also* 40 C.F.R. § 1502.14 (CEQ NEPA regulations addressing reasonable alternatives).

**B. The Army Corps cannot make a determination as to the impacts to threatened and endangered species or their critical habitat as Section 7 Consultation pursuant to the Endangered Species Act is still ongoing (40 C.F.R. § 230.10(b)(3)).**

The Army Corp’s Section 404(b)(1) Guidelines prohibit the discharge of dredged or fill material if the discharge, “[j]eopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended.” 40 C.F.R. § 230.10(b)(3). Pursuant to this section of the Guidelines, the permit application (public notice) states that consultation under Section 7 of the Endangered Species Act “has been initiated by the Forest Service with the U.S. Fish & Wildlife Service.” Pub. Notice/Application No.: SPL-2020-00103, at 3. It is clear that Section 7 consultation is required as a pre-condition to issuance of a Section 404 permit.

While consultation has been initiated, it is still ongoing and the various impacts to species have not been adequately assessed. Nevertheless, Arizona Standard has proceeded with submitting a

Section 404 permit application before Section 7 consultation has been completed. The Draft EA states that “[t]he [Biological Assessment] has been submitted to USFWS for review as part of the Section 7 Consultation process, as required by the ESA. The Proponent and CNF ID Team are coordinating with USFWS to assess the potential effects to federally listed species, and to develop mitigation measures that would avoid or minimize adverse impacts. The results of this consultation will be documented in a Biological Opinion issued by USFWS, and any terms and conditions would be incorporated into this EA as mitigation measures.” Draft EA, at 46. As the consultation process has not been completed and the findings of the Biological Assessment and the Biological Opinion have not been incorporated into the Draft EA or made available for public comment, the Army Corps must deny the Section 404 permit at this time.

Until adequate Section 7 consultation has been completed, the Army Corps cannot determine that the proposed action will not jeopardize the continued existence of listed species or cause the destruction or adverse modification of critical habitat. The SED Project will have numerous impacts on listed species and their critical habitat, which we will discuss more broadly in our comments on the Draft EA (see our forthcoming comments on the Draft EA, which we will email to you once submitted and are incorporated by reference herein). With respect to waters of the United States, we are concerned that the proposed improvements to and construction of access roads, along with other exploratory drilling activities, will cause harm to wildlife, habitat, and water resources within and near the project area. These impacts must be adequately assessed and mitigated. In particular, the access points that run within the ephemeral channels are liberally characterized as existing roads. *See, e.g.*, Attachment A. (Photographs of ephemeral washes characterized as “access roads” in Humboldt Canyon). To make these access points usable roads, there will need to be significant improvements that will alter the riparian habitat, ephemeral washes/waterbeds, and wetland areas. Due to the nature of the region (as water often characterized as the most valuable resource in Arizona), the ephemeral washes and wetlands are of critical importance to wildlife and habitat.

The SED Project (and nearby Hermosa and San Antonio projects) will physically alter the riparian and ephemeral habitat and create significant noise, light, pollution, traffic, and other forms of human disturbance round-the-clock in a remote area where these things are otherwise absent. The SED Project area provides habitat, including designated critical habitat, and is occupied or potentially occupied by four threatened or endangered wildlife species protected under the Endangered Species Act (“ESA”). 16 U.S.C. §§ 1531–1544. The ephemeral washes and wetlands are important facets of this habitat. The Draft EA specifically states that the project “may affect, and is likely to adversely affect,” the Mexican spotted owl and its designated critical habitat, the yellow-billed cuckoo, the jaguar and its designated critical habitat, and the ocelot, discussed below. Draft EA, at 54–55. The Draft EA, however, does not thoroughly address the threatened Chiricahua leopard frog, endangered Sonoran tiger salamander, or Gila topminnow. Also discussed below, these are aquatic species that have been sighted in the project area and/or may be affected by downstream cumulative impacts of the project and therefore the impacts to these species must be assessed.<sup>1</sup>

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<sup>1</sup> Again, ESA consultation between USFS and the U.S. Fish and Wildlife Service is still ongoing and therefore the effects of road improvements, construction, as well as other mining activities will have on these species and their habitat has not been fully assessed. Once these impacts are better understood, mitigation measures will need to be proposed, reviewed, and implemented to prevent take of species or habitat degradation. The Army Corps should deny or at least postpone

### Mexican spotted owl

The Mexican spotted owl is listed under the ESA as a threatened species. The entire project area is inside of the designated critical habitat for the species. Draft EA, at 48. The Draft EA specifically states that the “Project would occur in areas that are known to be used by the Mexican spotted owls for breeding, roosting, foraging, and dispersal.” Draft EA, at 52. Further, road and other construction and drilling would occur within and adjacent to three Protected Activity Centers (“PACs”) for the Mexican spotted owl (PAC # 03-020; PAC # 03-024; PAC # 03-025) and vehicle and equipment travel would occur along Harshaw Road within two PACs for the species (PAC # 03-018; PAC # 03-008). Draft EA, at 52. PACs are sub-designations of Mexican spotted owl habitat that are heavily used by owls and therefore designated to protect core nesting areas, major roost areas, and the most proximal and heavily used foraging areas. *See generally* U.S. Fish & Wildlife Serv., Recovery plan for the Mexican Spotted Owl (*Strix occidentalis lucida*) (1995) [submitted as an attachment to this comment letter]; Joseph L. Ganey et al., Use Of Protected Activity Centers by Mexican Spotted Owls In the Sacramento Mountains, New Mexico, *J. Raptor Res.* 48(3): 210–218 (2014) [submitted as an attachment to this comment letter].

The affects the SED Project will have on ephemeral washes and wetlands within the Mexican spotted owl’s critical habitat and PACs will directly affect the species. Clearing and grubbing of vegetation along, filling in, and pollution to surface water will alter the habitat (including impacts to prey species) and water resources upon which the owl relies. Further, road improvement and construction, other clearing and grubbing, dust control, drill pad construction, and drilling operations (which will occur 24 hours a day, seven days a week, and use lighting at night) will directly affect Mexican spotted owls in the project area. Such activities have a high potential to delay or even prevent the onset of breeding (even if drilling activities only occur in the “non-breeding season,” there is evidence that Mexican spotted owl breeding was severely limited while remediation and exploratory drilling was occurring at the adjacent Hermosa Project over the past few years), flush the owls from trees and their nests, or result in territory abandonment. Any action taken within or near the Mexican spotted owl’s critical habitat or PACs needs to be mitigated, minimized, or eliminated to ensure adequate protection of the species.

### Yellow-billed cuckoo

The western distinct population segment of the yellow-billed cuckoo is listed under the ESA as a threatened species. The project would occur in areas that may be used by yellow-billed cuckoos for breeding, foraging, and migrating. Draft EA, at 53. The species is a relatively common summer resident in the Patagonia Mountains, are often seen or heard along Harshaw Road, and are known to breed in Hermosa, Goldbaum, and Corral Canyons. Although usually considered a riparian habitat specialist, yellow-billed cuckoos also regularly visit and forage in oak and mesquite woodlands adjacent to riparian areas dominated by willows and cottonwoods. Yellow-billed cuckoos are more often heard than seen and they appear to avoid areas frequented by people. The filling-in of the ephemeral washes, road construction, increased traffic, dust control, and drilling activities proposed

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issuance of any permit until affects to all listed species (including the aquatic species) and habitat is known and adequate mitigation measures are implemented to limit the impacts federally protected species.

by the SED Project would occur in good yellow-billed cuckoo habitat and would very likely result in reduced use of those areas, fewer nesting attempts, and possible nest abandonment.

### Jaguar and Ocelot

The jaguar and the ocelot are both listed under the ESA as endangered species. The project area is inside the designated critical habitat for the jaguar. Draft EA, at 48. And though critical habitat has not been formally designated for the ocelot in the Patagonia Mountains, the project area similarly serves as habitat for the ocelot. An important function of the habitat in the Patagonia Mountains, including the project area, including the designated critical habitat, is to serve as a corridor linking occupied jaguar and ocelot habitat to the north and south allowing both species to move between Mexico and the United States. Specifically, the most likely route for jaguar and ocelot travelling from northern Mexico to the Santa Rita Mountains is through the Patagonia Mountains. Thus, the project area provides potential habitat connectivity for both jaguar and ocelots.

Substantial portions of the south-facing slopes, including areas within meters of proposed drilling sites, appear to have the characteristics of good ocelot foraging habitat, meeting the published criteria for canopy height, visual obscurity, ground cover, and coarse woody debris. There is growing evidence that ocelot populations in northern Mexico are increasing and expanding into the United States. Several ocelots have been sighted or photographed in the borderlands region over the past years. Studies of the movements of other native cat species have documented the impact of noise from roads and road-building on movement patterns, and the proposed exploratory drilling has the potential to interfere with the movements of both ocelots and jaguar as they attempt to move north from Mexico into southern Arizona. The construction as well as the noise from the drilling operations has significant potential to slow the recovery of both ocelot and jaguar in southern Arizona. Further, construction of roads and any mining equipment and facilities could cause physical obstacles for both jaguar and ocelot movement throughout the area.

### Chiricahua leopard frog

The Forest Service must analyze effects of the project on the federally threatened Chiricahua leopard frog (*Rana chiricahuensis*). The Draft EA deals summarily with the frog, with analysis restricted to two tables. Table E-1 states that “No records of Chiricahua leopard frog exist in the Patagonia Mountains,” Draft EA, Appendix E, at E-1, and Table 6 of the Plan of Operations states that “No known records occur within or near the Project Area. Suitable aquatic habitat for this species in the form of cienegas, springs, pools, cattle tanks, streams, and rivers is generally lacking within the Project Area.” Arizona Standard, Plan of Operations, Sunnyside Exploration Drilling Project, at 39 (Feb. 28, 2021), [https://www.fs.usda.gov/nfs/11558/www/nepa/111128\\_FSPLT3\\_5599116.pdf](https://www.fs.usda.gov/nfs/11558/www/nepa/111128_FSPLT3_5599116.pdf) [hereinafter PoO]. The PoO also states that the species is “unlikely to occur within or near the Project Area and that there will be “no effect.” PoO, at 36.

The statement that “no records of Chiricahua leopard frog exist in the Patagonia Mountains” is false. *See* Draft EA, Appendix E, at E-1. For example, the 2010 Final Environmental Assessment, Redrock Canyon Renovation Project list a location record from 1998 at Harshaw Creek near the Harshaw town site. U.S. Forest Serv., Final Environmental Assessment, Redrock Canyon

Renovation Project, 97 (Appendix B) (Sept. 2010) [submitted as an attachment to this comment letter]. This statement is further contradicted by the 2014 Hermosa Drilling Project draft Environmental Assessment, for a similar project neighboring the proposed Sunnyside project area. The Hermosa draft EA's Table 14 concluded that "[p]roject area contains suitable habitat. . . . [and the species is] [k]nown to occur within 1 mile of the project area." U.S. Forest Serv., Hermosa Drilling Project, Draft Environmental Assessment, at 44–45 (Mar. 2014) [hereinafter Hermosa Draft EA] [submitted as an attachment to this comment letter]. Moreover, Table 6 of the Plan of Operations makes the dubious claim that "[s]uitable aquatic habitat for this species in the form of . . . streams . . . is generally lacking within the Project Area." PoO, at 39. Given that Harshaw Creek falls into the category of "stream," a category that may constitute "suitable habitat" (Table 6 of Plan of Operations), and given that Harshaw Creek will be affected by the project activities, it is clear that habitat is present in the Project Area.

The Draft EA notes that drilling, road building, and related activities could result in release of artisanal flows and increased sediment runoff into Harshaw Creek: "Aggrading or degrading sediment deposition in surface waters could degrade stream morphology, floodplain function, and wetland/riparian resources." Draft EA, at 10.

Moreover, cumulative impacts must be analyzed including the huge releases of produced water expected by the neighboring Hermosa Project. The Draft EA states that the Hermosa Project proposes to discharge "treated water from the exploratory declines to Harshaw Creek." Draft EA, at 43. If large volumes of water are discharged into Harshaw Creek by the Hermosa project, this water would mix with artisanal releases and sediment runoff caused by the Sunnyside Project.

These cumulative flows will change the hydrology, geomorphology, and vegetation form and composition of Harshaw Creek, thereby affecting any frogs that may be present. Moreover, water discharge into Harshaw Creek will ultimately enter Sonoita Creek where it would have similar effects on hydrology, geomorphology, and vegetation. It is important to note that the 2007 Final Recovery Plan for the Chiricahua leopard frog designated Recovery Unit 2, the Santa Rita-Huachuca-Ajos/Bavispe Recovery Unit to include "Sonoita Creek downstream of Patagonia," the confluence of Harshaw and Sonoita creeks. U.S. Fish & Wildlife Serv., Final Recovery Plan for the Chiricahua Leopard Frog, at B-14 (Apr. 2007), <https://www.rosemonteis.us/sites/default/files/references/045774.pdf>. The recovery plan goes on to say, "Chiricahua leopard frogs are still well-represented in RU 2, including populations on the eastern slope of the Santa Rita Mountains, Patagonia Mountains, Canelo Hills . . . ." *Id.* Therefore, it is clear that the project would affect habitat and possibly extant populations of this threatened species. Prior to approving this project, USFS must do a thorough baseline survey to identify possible presence in both Harshaw and Sonoita creeks, and must analyze potential adverse effects.

#### Sonoran tiger salamander

As for the endangered Sonoran tiger salamander (*Ambystoma tigrinum stebbinsi*), the draft EA concludes without evidence that the species is "unlikely to occur within or near the Project Area" and that there will be "no effect" on the species or its habitat as a result of the proposed action.

Draft EA, at 36. However, this conclusion is also contradicted by the 2014 Hermosa Drilling Project draft Environmental Assessment. The Hermosa draft EA's Table 14 concluded that "[p]ortions of the project area contain suitable habitat [and the species is] [k]nown to occur within one mile of the project area." Hermosa Draft EA, at 45. The same arguments pertain to this species as for the leopard frog, namely that direct effects of the Sunnyside Project, and the combined cumulative effects of the Sunnyside and Hermosa projects, could significantly alter the habitat of the salamander. Prior to approving this project, USFS must do a thorough baseline survey to identify possible presence in both Harshaw and Sonoita creeks, and must analyze potential adverse effects.

### Gila topminnow

The PoO concludes that there will be "no effect" on the endangered Gila topminnow (*Poeciliopsis occidentalis*) because "[b]ased on the range, general habitat requirements, potential for occurrence, and/or survey results, the . . . Gila topminnow [is] unlikely to occur within or near the Project Area. PoO, at 36. However, USFS should conduct a baseline analysis of the Harshaw Creek potential topminnow habitat and the existing population in Sonoita Creek.

The 1998 Gila topminnow revised recovery plan (1998) identified Harshaw Creek as one of the "known habitats available for reestablishment of Gila topminnow" as part of the overall recovery strategy. U.S. Fish & Wildlife, Gila Topminnow, *Poeciliopsis occidentalis occidentalis*, at 31 (Dec. 1998), <https://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/GilaTopminnow/gtop94fn.pdf> (listed in Table 3). Given that Harshaw Creek was identified as a potentially important habitat in recovering the topminnow, USFS should analyze its suitability for reintroducing the topminnow and the effects of this project on that suitability.

Further, the topminnow inhabits Sonoita Creek downstream from Patagonia and below the point where Harshaw Creek joins Sonoita Creek. As described in the section on the Chiricahua leopard frog, drilling and road building associated with the project may cause changes in "stream morphology, floodplain function, and wetland/riparian resources" in Harshaw Creek. *See* Draft EA, at 10. Because Harshaw Creek connects to Sonoita Creek above the creek's topminnow population, these changes, including sediment deposition, could affect the topminnow. USFS should analyze possible effects to the species. Moreover, as in the case of the leopard frog, USFS must analyze the cumulative effects of this project with that of the Hermosa Project's proposed water discharge, which will reach Sonoita Creek after being discharged into Harshaw Creek.

### **C. The SED Project will cause or contribute to significant degradation (40 C.F.R. § 230.10(c)).**

The Section 404(b)(1) Guidelines prohibit the Army Corps from issuing permits that will "cause or contribute to significant degradation of the waters of the United States." 40 C.F.R. § 230.10(c). This may include:

- (1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.

- (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
- (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
- (4) Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.

*Id.* Moreover, the Army Corps is required to analyze secondary effects, defined by the Guidelines as “effects on the aquatic ecosystem that are associated with the discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.” 40 C.F.R. § 230.11(h). The consideration of secondary effects is necessary for the Guidelines analysis.

#### Cumulative Effects Could Result in Significant Degradation of Waters of the United States

To issue a Section 404 permit, the Army Corps must “collect information and solicit information from other sources about the cumulative impacts on the aquatic ecosystem” and consider this information “during the decision-making process concerning the evaluation of individual permit applications.” 40 C.F.R. § 230.11(g)(2). Here, the Army Corps has failed to assess the cumulative effects of the SED Project on its own as well as in combination with the neighboring mining projects (Hermosa and San Antonio projects).

Road improvement and construction is not the sole action to consider, though these impacts will be significant to the area; the Corps must also consider other clearing and grubbing, road use, erosion, dust control and spill containment (i.e., further impacts on wetlands or ephemeral washes), water containment (i.e., potential overflow during rain events), drill pad construction, and drilling or other mining operations. Further, the adjacent Hermosa and San Antonio mining projects will have similar impacts. The Hermosa Project, for example, proposes to discharge water into Harshaw Creek, which could have cumulative impacts on the jurisdictional water in addition to those of the SED Project. Cumulative effects include, but are not limited to impacts to threatened and endangered species (i.e., the Mexican spotted owl and its critical habitat (including PACs), yellow-billed cuckoo, jaguar and its critical habitat, and ocelot), other migratory birds and sensitive wildlife and plant species, cultural resources, and water resources (including surface and groundwater impacts, particularly in a time of increasing water scarcity) (further discussion of these impacts are included in our comments to the Draft EA, which we will email to you once submitted and are incorporated by reference herein).

#### Secondary Effects Have Not Been Adequately Assessed

The permit application makes minimal mention of indirect impacts to waters of the United States (though the Draft EA makes mention of other indirect impacts of the SED Project), and only states that “additional sediment and erosion control measures will be implemented to avoid indirect

impacts due to sediment runoff associated with road construction and improvements.” Pub. Notice/Application No.: SPL-2020-00103, at 5. Secondary effects, including but not limited to sediment runoff associated with road construction and improvements, must be fully considered before a permit can be issued for the project. Failure to identify and analyze other potential secondary effects violates the law.

**D. The proposed project fails to take appropriate and practicable measures to avoid and minimize potential adverse effects (40 C.F.R. § 230.10(d)).**

Pursuant to the Section 404(b)(1) Guidelines, “the district engineer may determine that a [] permit for the proposed activity cannot be issued because of the lack of appropriate and practicable compensatory mitigation options.” 33 C.F.R. § 332.1(c)(3). The 1990 Memorandum of Agreement between EPA and the Army Corps established a three-part process, known as the mitigation sequence, to help guide mitigation decisions and determine the type and level of mitigation required under CWA Section 404 regulations:

Step 1. Avoid - Adverse impacts to aquatic resources are to be avoided and no discharge shall be permitted if there is a practicable alternative with less adverse impact.

Step 2. Minimize - If impacts cannot be avoided, appropriate and practicable steps to minimize adverse impacts must be taken.

Step 3. Compensate - Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain. The amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts.

Memorandum of Agreement Between the EPA and Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (Feb. 6, 1990), [https://www.epa.gov/sites/production/files/2019-05/documents/1990\\_army-epa\\_mitigation\\_moa.pdf](https://www.epa.gov/sites/production/files/2019-05/documents/1990_army-epa_mitigation_moa.pdf); *see generally* EPA, Wetlands Compensatory Mitigation, [https://www.epa.gov/sites/production/files/2015-08/documents/compensatory\\_mitigation\\_factsheet.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/compensatory_mitigation_factsheet.pdf).

With regard to Step 3, the Army Corps published the Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines to standardize mitigation requirements. These Guidelines require the Corps to use a watershed plan or watershed approach to develop compensatory mitigation:

The ultimate goal of the watershed approach is “to maintain and improve the quality and quantity of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.” It is expected that the use of a watershed approach will result in ecologically successful compensatory mitigation that more effectively offsets losses of aquatic resource functions and services. In undertaking the watershed approach, the Corps will consider watershed needs and how the location of compensatory mitigation sites would address those needs. The type of aquatic resource proposed for compensatory mitigation should be ecologically suitable to the

location and complement the diversity (including spatial distribution) of aquatic resources in a project watershed (or alternatively: ecoregion, physiographic province, or other geographic area of interest). These considerations will include evaluation of the appropriate size watershed . . . depending on the project size, type, and level of project impacts.

U.S. Army Corps of Eng'rs, Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division, at 11–12 (Jan. 12, 2015), <https://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf>. Further, the Army Corps is required to adhere to the following preference hierarchy for compensatory mitigation: (1) mitigation banks, (2) in-lieu fee programs, and (3) permittee-responsible mitigation in consideration of a watershed approach. *Id.* at 11.

The proposed mitigation and description of the steps required by the above regulations is woefully inadequate. For the “Avoidance/Minimization” step, only a few paragraphs of information are provided in the permit application (public notice). Public Notice/Application No.: SPL-2020-00103), at 5–6; *see also* Draft EA, at 52 (special mitigation for this plan). In order for this aspect of the analysis required pursuant to 33 C.F.R. § 332.1(c)(3) to be sufficient, significantly more information about the project is required. As part of its review of the permit application, the Army Corps should fully describe all the construction and design best management practices for all of the project’s components and how these practices and designs minimize impacts.

The permit application (public notice) and Draft EA are devoid of any detailed analysis of the effectiveness of the purported avoidance and mitigation measures. It is impossible for the Army Corps or USFS to contend that it fully reviewed the effectiveness of mitigation measures, when the supporting documents only refer generally to potential mitigation measures (as discussed further in our comments on the Draft EA, which we will email to you once submitted and are incorporated by reference herein). It is wholly unclear how road improvement and construction, other construction activities, transportation, dust and spill control, and other mining activities will be minimized or mitigated to reduce the impact on waters of the United States or the project area generally. How activities such as grubbing and clearing, dredge and fill, erosion control, road maintenance, etc. will be carried out is also unclear. In addition, the permit application (public notice) states that only approximately 3.5 miles of upgraded roads and laydown yards will be physically decommissioned and reclaimed prior to completion of the project, but this does not encompass all of the construction or road improvements in the project proposal. Public Notice/Application No.: SPL-2020-00103), at 5–6; *see* Draft EA, at 49–51. Last, there is only one line regarding the compensatory measures in the permit application (public notice) and the bond information is incomplete in the Draft EA. Public Notice/Application No.: SPL-2020-00103), at 6; Draft EA, at 52–53; *see also* PoO, at 51. Thus, further analysis of these avoidance, mitigation, and compensation measures is required.

### **3. The Section 404 permit would be contrary to the public interest.**

The “public interest review” is crucial to examining the cumulative impacts of a proposed permit. *See* 33 C.F.R. § 320.4(a)(1). The public interest review is based on a range of factors, calling for the weighing of proposed impacts against the potential benefits of the proposed activity. The Army Corps issues a permit only if it concludes that the project is in the public interest. *Id.*

The public interest review is a balancing test of factors that impact the cumulative effects, which may include “conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.” *Id.* § 320.4(a)(1). Under the general policies for evaluating permit applications, 33 C.F.R. § 320.4, the Corps must include the following factors in its public interest analysis:

- (i) The relative extent of the public and private need for the proposed structure or work;
- (ii) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and
- (iii) The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited.

*Id.* § 320.4(a)(2).

Here, the Army Corps states in Arizona Standard’s Permit Application Public Notice that it has not yet conducted a public interest review, but rather, is currently “soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity.” Pub. Notice/Application No.: SPL-2020-00103, at 3. These comments will then be used to assess the public interest factors above. Because the Army Corps has not yet initiated the public interest review, as required by 33 C.F.R. § 320.4(a)(1), it may not issue a Section 404 permit. We, Defenders of Wildlife, PARA, and Tucson Audubon Society, officially request an opportunity to review the Army Corps draft Public Interest Determination once it is complete, before a final permit determination is made.

The Army Corps regulations direct that “full consideration and appropriate weight will be given to all comments, including those of federal, state, and local agencies, and other experts on matters within their expertise.” 33 C.F.R. § 320.4(a)(3). Thus, upon consideration of the public interest factors, based on the collective experience of the signed organizations which have been engaged in the public debate over proposed Sunnyside Project for several years and our expertise advocating for environmental protection and conservation in the state of Arizona, it is our opinion that the proposed Sunnyside Project is contrary to the public interest and should not be permitted.

The project would result in massive, irreversible, and negative impacts on the environment, in particular wildlife, habitat, and water resources, as well as cultural resources. The basis of this project is the privatization of federal public land in order to make a profit for an international corporation at the expense of the health and welfare of the local environment and communities. No mitigation measures or permit conditions can be sufficiently implemented to lessen the negative impacts of the proposed Sunnyside Project in order to warrant a finding that the project would be in the public interest. Therefore, Arizona Standard’s permit application must be denied.

#### 4. The Section 404 Permit must be denied for lack of sufficient information and public notice.

One of the fundamental congressional goals and policy in enacting the CWA is to ensure full public participation in Army Corps and EPA permitting decisions: “Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program . . . shall be provided for, encouraged, and assisted by the Administrator and the States.” 33 U.S.C. § 1251(e). In line with Congress’ goals and policy, the Army Corps’ regulations require that all proposed discharges be subject to “public review and comment.” 33 C.F.R. §§ 325.2(a) & (d), 325.3, 332.4(b) (public review and comment on compensatory mitigation plans). “[P]ublic notice is the primary method of advising all interested parties of the proposed activity for which a permit is sought and of soliciting comments and information necessary to evaluate the probable impact on the public interest. The notice must, therefore, include sufficient information to give a *clear understanding of the nature and magnitude of the activity to generate meaningful comment.*” 33 C.F.R. §325.3(a) (emphasis added).

Consistent with this Congressional intent, the 404(b)(1) Guidelines prohibit issuance of a permit where “[t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.” 40 C.F.R. § 230.12(a)(3)(iv). In addition, under the Army Corps’ regulations, when a project is so speculative that alternatives and avoidance and minimization cannot be meaningfully addressed, the application may be considered incomplete. *See* 33 C.F.R. § 325.3(a). Here, Arizona Standard’s permit application is missing so many key elements needed for review, the public has been effectively denied their lawful opportunity to fully consider and comment on the matter. Further, because the Army Corps is relying on the Draft EA to satisfy its NEPA obligations and information about Section 404 permitting is included throughout the Draft EA, the public is also being denied the opportunity to comment on a complete Draft EA.

Arizona Standard’s permit application is missing the following crucial requirements:

- Section 7 ESA Consultation pursuant to 40 C.F.R. § 230.10(b)(3);
- Section 401 Certification pursuant to 33 U.S.C. § 1341(a);
- Public Interest Review pursuant to 33 C.F.R. § 320.4(a)(1);
- A Complete Practicability Analysis pursuant to 40 C.F.R. § 230.10(a);
- A Complete Compensatory Mitigation Plan pursuant to 40 C.F.R. Part 230, allowing for public comment pursuant to 33 C.F.R. § 332.4(b);

Without a full assessment of these regulatory uncertainties, a Section 404 permit may not be issued.

#### **Conclusion**

For the above reasons, the Section 404 permit for the SED Project cannot be issued. The Section 404 permit, as well as the Section 401 certification and Draft EA, must adequately consider and address all discharge impacts to waters of the United States (and associated wildlife and habitat impacts) of the SED Project before granting approval.

We appreciate the opportunity to comment on this proposed action. Please continue to include the signatory organizations as interested parties and direct all future public notices and documents to us at the addresses below.

Sincerely,



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Attachment A

Photographs of ephemeral washes characterized as “access roads” in Humboldt Canyon.  
(taken by Carolyn Shafer, Patagonia Area Resource Alliance)

