

By Email and Certified Mail

March 8, 2016

Lt. Gen. Thomas P. Bostick Commanding General & Chief of Engineers U.S. Army Corps of Engineers 441 G Street NW Washington, DC 20314

Sally Jewell Secretary of the Interior U.S. Department of the Interior 1849 C Street NW Washington, DC 20240

Daniel M. Ashe Director U.S. Fish & Wildlife Service 1849 C Street NW Washington, DC 20240

Col. Kirk E. Gibbs Commander, Los Angeles District U.S. Army Corps of Engineers 915 Wilshire Boulevard Los Angeles, CA 90017

Dr. Benjamin Tuggle Regional Director, Southwest Region U.S. Fish & Wildlife Service 500 Gold Avenue SW Albuquerque, NM 87102

Notice of Intent to Sue for Violations of Endangered Species Act in Connection with Re: Clean Water Act Section 404 Permit No. 2003-00826-SDM

Dear Lt. Gen. Bostick, Secretary Jewell, Director Ashe, Col. Gibbs, and Dr. Tuggle,

On behalf of the Center for Biological Diversity, Sierra Club, Maricopa Audubon Society, Tucson Audubon Society, Cascabel Conservation Association, and Lower San Pedro Watershed Alliance, we provide notice that the U.S. Army Corps of Engineers (Corps) and U.S. Fish and Wildlife Service (FWS) are in violation of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations by failing to reinitiate ESA consultation on Clean Water Act (CWA) Section 404 (33 U.S.C. § 1344) permit number 2003-00826-SDM. The Corps originally issued the permit to Whetstone Partners LLP in 2006, which transferred the permit to El Dorado Benson, LLC in 2014. El Dorado proposes to develop a new master planned community of 28,000 housing units and related commercial and other infrastructure, relying on the Section 404 permit to fill jurisdictional waters of the United States to enable the development.

Since the Corps originally issued the Section 404 permit: 1) FWS has listed new species under the ESA and designated and proposed new critical habitat for listed species that may be affected by the action; 2) new information reveals that the action may affect listed species in a manner and to an extent not previously considered; and 3) the proposed development authorized by the permit has been modified in a manner that causes effects on listed species not previously considered. The Corps and FWS have failed to reinitiate ESA Section 7 consultation on the

permit, in violation of ESA regulations. 50 C.F.R. § 402.16. And by continuing to authorize the Section 404 permit without reinitiating consultation, the Corps has failed to insure that the permit is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat or proposed critical habitat, in violation of ESA Section 7(a). 16 U.S.C. § 1536(a)(2), (4). Moreover, continuing to authorize the permit prior to the completion of reinitiated consultation constitutes a violation of ESA Section 7(d), which prohibits the "irretrievable commitment of resources" pending completion of consultation. 16 U.S.C. § 1536(d). This letter constitutes notice required by Section 11(g) of the ESA, 16 U.S.C. § 1540(g), prior to commencement of legal action.

I. Background

A. Original Issuance of the Section 404 Permit

In 2003, Whetstone Partners LLP applied to the Corps for a CWA Section 404 permit to fill seventy acres of ephemeral desert washes on an 8,200-acre parcel in Benson, Arizona in the Middle San Pedro watershed.¹ The parcel (hereinafter "Whetstone parcel") is bounded by the Whetstone Mountains to the west and by the San Pedro River located less than two miles to the east. Whetstone Partners intended to develop a master planned community called "Whetstone Ranch" on the parcel, with approximately 20,000 housing units, as well as commercial land uses, roadways, utilities, and recreational amenities. Whetstone Partners applied for a Section 404 permit because it determined that filling a portion of the parcel's 475 acres of desert washes jurisdictional waters of the United States — was necessary to construct the planned communityoriented development. Following negotiations among the Corps, the Environmental Protection Agency (EPA), and Whetstone Partners, the Corps issued a Section 404 permit to Whetstone on June 21, 2006 authorizing it to fill fifty-one acres of washes at unspecified locations within the Whetstone parcel.² U.S. Army Corps of Eng'rs, L.A. Dist., Dep't of the Army Permit No. 2003-00826-SDM to Ernie Graves, Whetstone Partners L.L.P. (June 21, 2006). The Corps completed an environmental assessment at the time, which included a summary of possible effects on special status species. U.S. Army Corps of Eng'rs, Environmental Assessment, 404(b)(1) Evaluation, Statement of Findings, Public Interest Review, Permit Application Number: 2003-00826-SDM, at 17–27 (2006) [hereinafter EA]. But the Corps apparently did not consult with FWS on potential effects to listed species or critical habitat, despite being notified by FWS that the project could affect the endangered lesser long-nosed bat, as well as other listed species in San Pedro River habitat. See id. at 28, 59-60.

To help mitigate the effects of the fill operations, the permit required Whetstone Partners to preserve, enhance, and restore a 144-acre parcel (hereinafter "mitigation parcel") along the San Pedro River approximately two miles northeast (downstream) of the Whetstone parcel. Conservation actions to be taken on the parcel included regrading and stabilizing gullies,

.

¹ CWA Section 404(a) provides that the Corps "may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites." 33 U.S.C. § 1344(a).

² Whetstone Partners agreed to reduce the fill acreage in response to EPA's concerns over environmental impacts.

installing livestock fencing, removing invasive plants, and planting native mesquite and cottonwood. These actions apparently have not yet been initiated.

B. The Villages at Vigneto Project

Due to the housing market downturn, Whetstone Partners never began construction on Whetstone Ranch. In 2014, Whetstone Partners sold the Whetstone parcel and transferred the associated Section 404 permit to El Dorado Benson, LLC. El Dorado also acquired 4,139 acres of additional undeveloped land in the vicinity (hereinafter "expansion parcels") at about the same time. El Dorado plans to construct a master planned community called "The Villages at Vigneto" that is nearly fifty percent larger than the Whetstone Ranch proposal. The development will cover all 12,339 acres of El Dorado's property (both the Whetstone parcel and the expansion parcels) and will consist of approximately 28,000 residential units, commercial developments, golf courses, vineyards and orchards, resorts, and an extensive road and utility network. In addition to the fifty-one acres of desert washes to be filled on the Whetstone parcel pursuant to the Section 404 permit, the development apparently will require filling an unknown amount of additional desert wash acreage on the expansion parcels.

Water for the development will be supplied by the City of Benson and pumped from the regional aquifer. Benson has allocated 12,000 acre-feet of water per year to The Villages at Vigneto, nearly fifteen times Benson's current groundwater demand of approximately 800 acre-feet per year. Groundwater pumping can reduce aquifer levels. Indeed, the area's aquifer levels generally have been declining since monitoring began in the 1940s. Jeffrey T. Cordova, et al., U.S. Geological Survey, *Hydrology of the Middle San Pedro Watershed, Southeast Arizona* 23–24 (2015). Declining aquifer levels in turn can reduce groundwater flow into the San Pedro River, thereby depleting the river's overall streamflow. *See generally* Paul M. Barlow & Stanley A. Leake, U.S. Geological Survey, *Streamflow Depletion by Wells — Understanding and Managing the Effects of Groundwater Pumping on Streamflow* (2012). So it is highly likely that additional groundwater pumping to supply The Villages at Vigneto will reduce San Pedro River streamflows.

El Dorado submitted its Final Community Master Plan and Development Plan to the City of Benson on September 8, 2015 and apparently hopes to break ground this year.

C. FWS's Draft Letter to the Corps Regarding the Need for Consultation

On July 15, 2015, FWS sent an unsigned "draft letter" to the Corps recommending that the Corps "request interagency consultation" on the Section 404 permit. Draft letter from Steven L. Spangle, Field Supervisor, FWS Ariz. Ecological Servs. Field Office, to Sallie Diebolt, Chief, Ariz. Branch of the U.S. Army Corps of Eng'rs L.A. District 1 (July 14, 2015), attached as Ex. 1 [hereinafter FWS Letter]. Specifically, FWS notified the Corps that the project "may affect" the northern Mexican gartersnake and western yellow-billed cuckoo and their critical habitats, and "could also affect" the southwestern willow flycatcher and its critical habitat. FWS letter at 1–5. FWS also recommended that the Corps "reconsider[]" the project's direct and indirect effects on the lesser long-nosed bat and on jaguar critical habitat. *Id.* at 5. The Corps apparently has not requested interagency consultation since receiving the letter.

II. The Corps' and FWS's Ongoing Duty to Consult on the Section 404 Permit

Section 7(a)(2) of the ESA requires each federal agency to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2). The ESA and its implementing regulations establish an interagency consultation process to assist federal agencies in complying with this duty. An agency must consult with FWS (or the National Marine Fisheries Service, as appropriate) under Section 7 whenever it takes an action that "may affect" a listed species. 50 C.F.R. § 402.14(a). In addition, an agency must confer with FWS "on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under [ESA Section 4] or result in the destruction or adverse modification of critical habitat proposed to be designated for such species." 16 U.S.C. § 1536(a)(4); see also 50 C.F.R. § 402.10.

The agency must consider all possible effects across the "action area," which encompasses "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. § 402.02; see Swan View Coal. v. Weber, 52 F. Supp. 3d 1133, 1150 (D. Mont. 2014). The "effects of the action" that must be considered include "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action." 50 C.F.R. § 402.02. "Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur." *Id.* "Interrelated actions are those that are part of a larger action and depend on the larger action for their justification." *Id.* "Interdependent actions are those that have no independent utility apart from the action under consideration." *Id.*

"The minimum threshold for an agency action to trigger consultation with FWS is low" W. Watersheds Project v. Kraayenbrink, 632 F.3d 472, 496 (9th Cir. 2011). "Any possible effect, whether beneficial, benign, adverse or of an undetermined character, triggers the formal consultation requirement" Interagency Cooperation—Endangered Species Act of 1973, as Amended, 51 Fed. Reg. 19,926, 19,949 (June 3, 1986) (emphasis added); see also U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., Endangered Species Consultation Handbook, at xvi (1998) ("May affect [is] the appropriate conclusion when a proposed action may pose any effects on listed species or designated critical habitat.").

As a result of consultation, the federal agency will obtain either a written concurrence letter from FWS that the proposed action is "not likely to adversely affect" listed species or their habitats, 50 C.F.R. §§ 402.13, 402.14(b)(1), or a biological opinion evaluating the effects of the federal action on listed species and their critical habitats, *id.* § 402.14(a). *See generally Thomas v. Peterson*, 753 F.2d 754, 763 (9th Cir. 1985). If FWS concludes that a proposed action is likely to jeopardize a listed species or result in adverse modification of its critical habitat, FWS must propose a reasonable and prudent alternative, if available, that will mitigate the proposed action so as to avoid jeopardy and/or adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3).

Separately, ESA Section 7(d) prohibits federal agencies, after the initiation of consultation under ESA Section 7(a)(2), from making any irreversible or irretrievable commitment of resources if doing so would foreclose the implementation of reasonable and prudent alternatives. *Id.* § 1536(d); *see*, *e.g.*, *Nat. Res. Def. Council v. Houston*, 146 F.3d 1118, 1128 (9th Cir. 1998)

(Section 7(d) violated where Bureau of Reclamation executed water service contracts prior to completion of formal consultation); *Sierra Club v. Marsh*, 816 F.2d 1376, 1389 (9th Cir. 1987) (construction of highway outside species habitat barred by Section 7(d) pending completion of consultation). This prohibition is not an exception to the requirements of Section 7(a)(2); it is in addition to the requirements of Section 7(a)(2) and it ensures that Section 7(a)(2)'s substantive mandate is met. *See, e.g., Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1056–57 (9th Cir. 1994).

The duty to consult is ongoing; it does not terminate when the initial agency action is complete. *Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1086 (9th Cir. 2015); *Mount Graham Red Squirrel v. Madigan*, 954 F.2d 1441, 1445 n.6. (9th Cir. 1992); *see also Pac. Rivers Council*, 30 F.3d at 1054–55 (stating "agency action" is to be construed "broadly"). ESA regulations reflect that obligation by requiring the reinitiation of consultation in certain circumstances:

Reinitiation of formal consultation is *required* and *shall* be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

- (a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or
- (d) If a new species is listed or critical habitat designated that may be affected by the identified action.

50 C.F.R. § 402.16 (emphasis added).

This regulation applies to the Section 404 permit here. Discretionary federal involvement and control over the permit has been retained *and* is authorized by law.

An agency has retained the requisite involvement or control when it has "discretion to take actions that 'inure to the benefit' of protected species." *Cottonwood Envtl. Law Ctr.*, 789 F.3d at 1087 (quoting *Wash. Toxics Coal. v. EPA*, 413 F.3d 1024, 1033 (9th Cir. 2005)). The Corps possesses such discretion with regard to El Dorado's permit. The permit provides, "This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to . . . [s]ignificant new information [that] surfaces which this office did not consider in reaching the original public interest decision." This provision retains for the Corps the type of discretion triggering the reinitiation duty. *Protect Our Water v. Flowers*, 377 F. Supp. 2d 844, 872–73 (E.D. Cal. 2004) (holding

identical provision in Section 404 permit imposed reinitiation duty); *see also WaterWatch of Or. v. U.S. Army Corps of Eng'rs*, No. CIV. 99-861-BR, 2000 WL 1100059, at *8–9 (D. Or. June 7, 2000) (holding the same for CWA Section 403 permit with similar language).

In addition, the requisite continuing control over Section 404 permits "is authorized by law," specifically by the Corps' own Section 404 regulations:

The district engineer may reevaluate the circumstances and conditions of any permit, including regional permits, either on his own motion, at the request of the permittee, or a third party, or as the result of periodic progress inspections, and initiate action to modify, suspend, or revoke a permit as may be made necessary by considerations of the public interest.

33 C.F.R. § 325.7(a). Considerations of the public interest include "fish and wildlife values," such as endangered species concerns. *Id.* § 320.4(a)(1).

Here, the discretionary federal involvement or control over Permit Number 2003-00826-SDM plainly has been retained *and* is authorized by law. So reinitiation of consultation on El Dorado's Section 404 permit is required so long as at least one of the four criteria in 50 C.F.R. § 402.16 is met. "The duty to reinitiate consultation lies with both the action agency (here, the Corps) and the consultation agency (here, the Service)." *Protect Our Water*, 377 F. Supp. 2d at 872.

III. The Corps' and FWS's Violations of the Duty to Reinitiate Consultation Under ESA Section 7

A. New species have been listed and new critical habitats proposed and designated that may be affected by Permit Number 2003-00826-SDM.

After the Corps originally issued the Section 404 permit in 2006, FWS listed two species as threatened, proposed critical habitat for both species, and designated new critical habitat for two other species, all of which may be affected by activities authorized by the permit. "Reinitiation" of consultation on the permit is required to insure that the permit does not jeopardize the continued existence of the newly listed species or result in the destruction or adverse modification of the newly proposed or finalized critical habitats. 50 C.F.R. § 402.16(d); *see* 16 U.S.C. § 1536(a)(2).

1. Western yellow-billed cuckoo

FWS listed the western yellow-billed cuckoo (*Coccyzus americanus*) as threatened on October 3, 2014, 79 Fed. Reg. 59,992, and proposed critical habitat for the species on August 15, 2014, 79 Fed. Reg. 48,548. The Section 404 permit may directly affect the cuckoo. The cuckoo occupies and critical habitat has been proposed for San Pedro River riparian areas that are adjacent to the project site. FWS letter at 2. "Cuckoos exhibit large, undefended territories around nest sites," with home ranges averaging between fifty-one and eighty-two hectares. *Id.* FWS has concluded, based on its examination of aerial imagery, that "suitable xeroriparian nesting and foraging habitat exists in the numerous ephemeral channels and portions of the uplands within

the project area." *Id.* In addition, cuckoos frequently have been observed in desert scrub and semi-desert grassland habitats, the dominant habitat types on the Whetstone parcel.

Cuckoos also have been documented breeding in Madrean evergreen woodlands adjacent to ephemeral streams in the nearby Patagonia Mountains. *Id.* This habitat type exists in the foothills of the Whetstone Mountains within and immediately to the west of the project area. *See id.* A 2015 Tucson Audubon Society survey documented yellow-billed cuckoos in this habitat in mountain canyons within two miles of the project's western edge. FWS has stated that this pattern of upland habitat use "make[s] it more likely that yellow-billed cuckoos occur in the intervening habitat between the mountain range and the San Pedro River, which necessarily includes the project area." *Id.* Therefore, the project may directly affect cuckoos using the property for foraging, shelter, or movement between habitats.

The cuckoo and its proposed critical habitat along the San Pedro River may be indirectly affected by the Section 404 permit via increased runoff and sediment transport from ephemeral washes into the San Pedro River or via decreased stream flows resulting from groundwater pumping. *Id.* at 3–4; *see also infra* sections III.B.1, III.B.2. FWS "do[es] not consider the [permit's mitigation measures] to be sufficient to ensure there are no direct or indirect effects to yellow-billed cuckoo habitat on the development site." FWS letter at 2.

Finally, management of the off-site mitigation parcel is an interdependent and/or interrelated action of the Section 404 permit that may affect the cuckoo and its proposed critical habitat, both of which are found on the parcel. *See id.* at 4. For these reasons, consultation on the Section 404 permit's effects on the newly listed western yellow-billed cuckoo and its proposed critical habitat is required.

2. Northern Mexican gartersnake

FWS listed the northern Mexican gartersnake (*Thamnophis eques megalops*) as threatened on July 8, 2014, 79 Fed. Reg. 38,678, and proposed critical habitat for the species on July 10, 2013, 78 Fed. Reg. 41,550. The Section 404 permit and the activities it authorizes may directly affect the gartersnake. Livestock tanks — of which there are many on the Whetstone parcel — provide "vital" habitat for the gartersnake. 79 Fed. Reg. at 38,715–16. The species also has been documented in semi-desert grassland — such as that found on the parcel — as far as one mile from the nearest aquatic site, so "[t]here is a reasonable potential for the species to be present in the project area." FWS letter at 3.

In addition, the Section 404 permit and the activities it authorizes may indirectly affect the species and its proposed critical habitat in and adjacent to the San Pedro River. According to FWS, "the upper San Pedro River is considered occupied by the species, and proposed critical habitat exists along the river adjacent to the area subject to [the Section 404] permit." *Id.* at 2–3. Activities authorized by the Section 404 permit may alter surface hydrology or increase runoff and sediment yield from ephemeral washes into the San Pedro River, or may decrease stream flows through groundwater pumping. *Id.* at 3–4; *see also infra* sections III.B.1, III.B.2. Such indirect impacts to the San Pedro's water quantity or quality may affect the gartersnake.

Finally, management of the off-site mitigation parcel is an interdependent and/or interrelated action of the Section 404 permit that may affect the gartersnake. *See* FWS letter at 4. The mitigation parcel is located within gartersnake proposed critical habitat and "[t]he uplands landward from the river also exhibit a high likelihood of northern Mexican gartersnake occurrence." *Id.* at 5. So management activities on the mitigation parcel may affect the species and its proposed critical habitat. *Id.* For these reasons, consultation on the Section 404 permit's effects on the newly listed northern Mexican gartersnake and its proposed critical habitat is required.

3. Southwestern willow flycatcher

FWS revised critical habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*) on January 3, 2013. 78 Fed. Reg. 343. The revision extended the bird's critical habitat along the San Pedro River several miles upstream towards Benson and the proposed development. *Compare id.* at 376, *with* 70 Fed. Reg. 60,886, 60,924 (Oct. 19, 2005) (previous critical habitat designation). The Section 404 permit may indirectly affect the flycatcher and its revised critical habitat through increased runoff and sediment transport from ephemeral washes into the San Pedro River or through decreased stream flows resulting from groundwater pumping. FWS letter at 3–4; *see also infra* sections III.B.1, III.B.2. Therefore, consultation on the permit's effects on the southwestern willow flycatcher and its revised critical habitat is required.

4. Jaguar

FWS issued a final rule designating critical habitat for the jaguar (*Panthera onca*) on March 5, 2014. 79 Fed. Reg. 12,572. The critical habitat overlaps the expansion parcels by approximately 700 acres. Development of this land clearly would directly affect the jaguar's critical habitat and may directly affect the species.³ In addition, jaguars may follow vegetated xeroriparian washes like those found on the development parcel to move between upland habitats; especially given that mule deer, a jaguar prey species, "tend to concentrate their movements along washes." EA at 16, 21. The development or fill activities on the Whetstone parcel thus may directly affect the jaguar. For these reasons, consultation on the project's effects on the jaguar and its critical habitat is required.

B. New information reveals that Permit Number 2003-00826-SDM may affect listed species in a manner or to an extent not previously considered.

Significant new information reveals that the project may affect several listed species in ways or to extents that were not considered before the Section 404 permit was issued in 2006. 50 C.F.R. § 402.16(b); see 16 U.S.C. § 1536(a)(2). New studies on downstream effects of developing the Whetstone parcel and on groundwater dynamics in the Middle San Pedro watershed reveal that the action may affect listed species and critical habitat in and along the San Pedro River in ways not previously considered. And new sightings of cuckoo, jaguar, and ocelot on or near El

⁻

³ Development of the expansion parcels is an interdependent and/or interrelated action of the Section 404 permit, as well as an indirect effect of the permit, so the effects of such development on listed species and their critical habitats must be considered. *See* 50 C.F.R. § 402.02.

Dorado's properties indicate those species may be affected to a greater extent than previously considered.

1. New science on downstream impacts on the San Pedro River

The Corps' May 2006 environmental assessment for the Section 404 permit rejected concerns that the project could have downstream impacts on the San Pedro River, concluding, "The waters of the U.S. that would be directly and indirectly affected by the Project are best characterized as ephemeral washes." EA at 28. The U.S. Department of Agriculture and EPA released a study in November 2006 demonstrating the indirect effects on the San Pedro River *are* likely. L. Levick, et al., U.S. Dep't of Agric. & EPA, *Simulated Changes in Runoff and Sediment in Developing Areas near Benson, Arizona* (2006). That study describes significant modeled increases in stormwater runoff and sediment transport into the San Pedro River that would result from filling washes and developing the Whetstone parcel. This new information reveals that the parcel's development may impact downstream San Pedro River habitat for listed species in a manner and to an extent not previously considered, such as through more frequent and severe flooding, stream channel adjustment, stream bank erosion, water quality degradation from sedimentation and contaminant transport, habitat destruction, and decreased biological diversity. *See id.* at 4. Reinitiation of consultation is required to consider these possible effects on listed species and critical habitats along the San Pedro River downstream from the Whetstone parcel.

2. New science on groundwater in the Middle San Pedro watershed

The Corps' environmental assessment concluded groundwater pumping "would not impact the San Pedro River floodplain aguifer or affect the base flow of the river" because the deep aguifer to be pumped "is located below a clay lens that separates" that aquifer from the shallow aquifer associated with the river. EA at 29. A recent U.S. Geological Survey study of Middle San Pedro watershed hydrology suggests that conclusion is inaccurate. Cordova, et al., *supra* p. 3. The study found that "[g]roundwater from the deep [aquifer] system flows through the interbedded unit to the shallow system before discharging in areas near the San Pedro River. An area of vertical flow between the deep and shallow systems might be present along the San Pedro River near St. David " *Id.* at 18; see also id. at 57 (noting possible mixing between deep and shallow aquifers). Groundwater from the deep aquifer also flows northward into the Lower San Pedro watershed — the location of southwestern willow flycatcher critical habitat, FWS letter at 3-4 — where it likely contributes to San Pedro River streamflows. *Id.* at 40-41. This new information indicates that reductions to deep aquifer levels due to the project's groundwater pumping may impact streamflows in the Middle and Lower San Pedro River, thereby affecting the listed species and critical habitat that depend on those flows in a manner and to an extent not previously considered. Accordingly, reinitiation of consultation is required to consider such effects.

3. New species occurrences in the project vicinity

<u>Western yellow-billed cuckoos</u>: There have been numerous sightings of western yellow-billed cuckoos in the project vicinity since 2006 that suggest the project may affect the species in ways and to a degree not previously considered. As described above, the Tucson Audubon Society has documented cuckoos in canyons in the Whetstone Mountains immediately to the west of the

project. These birds likely traverse the Whetstone parcel when moving between the canyons and San Pedro River riparian habitats. Mountain habitat use by cuckoos was not considered prior to the Section 404 permit's issuance. El Dorado also indicated in a July 2, 2015 letter to the Corps that cuckoos recently have been observed on the mitigation parcel. The presence of cuckoos on this parcel was not considered prior to the Section 404 permit's issuance. In addition, FWS has identified studies published in 2008 and 2013 providing new information on the important value to cuckoos of habitat found on and near the Whetstone parcel. Consultation must be reinitiated to consider how the permit may affect the cuckoo given the new observations in the area and the information in these studies.

<u>Jaguars</u>: A hunter photographed a jaguar in the Whetstone Mountains in 2011, providing new evidence that the species likely is present in the action area and that the project may affect the species.⁵ Accordingly, reinitiation of consultation on the project's effects on the jaguar is required.

Ocelots: Ocelots also have been observed in the Whetstone and Huachuca Mountains on multiple occasions since 2009.⁶ This new information suggests that ocelots likely are present in the action area and may be affected by the Section 404 permit, so consultation on the project's effects on the ocelot must be reinitiated.

C. The proposed development authorized by the permit has been modified in a manner that causes effects on the species not previously considered.

The Villages at Vigneto proposal is vastly larger with greater potential impacts than the proposed Whetstone Ranch development that the Corps analyzed before issuing the Section 404 permit. Under the Whetstone Ranch proposal, 20,000 housing units would be constructed on 8,200 acres. By comparison, the Villages at Vigneto proposal involves building 28,000 housing units on over 12,000 acres — along with the attendant added commercial space, amenities, and services required to serve the higher population — a nearly fifty percent increase in magnitude. Neither the larger development area nor the greater environmental effects from additional residents was

americanus) in the Patagonia Mountains, Near Harshaw, Arizona (2013); WestLand Res., Inc., Revised 2012 Survey for Yellow-billed Cuckoo (Coccyzus americanus) in the Patagonia Mountains, Near Harshaw, Arizona (2013); Lainie R. Levick, et al., The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest (2008)).

⁴ FWS letter at 2 (citing WestLand Res., Inc., Survey for Yellow-billed Cuckoo (Coccyzus americanus) in the Patagonia Mountains, Near Harshaw, Arizona (2013); WestLand Res.

⁵ See U.S. Fish & Wildlife Serv., *Jaguar and Ocelot Recently Photographed by Monitoring Cameras in Southern Arizona* (Dec. 20, 2012), http://www.fws.gov/news/ShowNews.cfm?ref=jaguar-and-ocelot-recently-photographed-by-monitoring-cameras-in-southern-a& ID=30449.

⁶ See, e.g., Tony Davis, Conservation group photo "most likely" of an ocelot, Game and Fish now says, Arizona Daily Star (Feb. 10, 2011), http://tucson.com/news/blogs/desertblog/conservation-group-photo-most-likely-of-an-ocelot-game-and/article ff35d4c4-3565-11e0-8a8d-001cc4c002e0.html.

previously considered, so reinitiation of consultation is required. 50 C.F.R. § 402.16(c); see 16 U.S.C. § 1536(a)(2).

The Villages at Vigneto master planned community includes development of additional parcels — covering 4,139 acres — in addition to the Whetstone parcel. Developing these expansion parcels may directly affect several listed species likely to occur on the parcels, including the jaguar, ocelot, lesser long-nosed bat, and western yellow-billed cuckoo.

One of the expansion parcels overlaps approximately 700 acres of jaguar critical habitat. Development of this parcel clearly may affect this critical habitat and may affect the species. *See* FWS letter at 5.

The expansion parcels potentially contain panniculate agaves, the forage resource for the endangered lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*). *Id.* Developing these parcels in addition to the Whetstone parcel may compound impacts to the area's agave population and thus may affect the bat. *See id.*

The expansion parcels also are crossed by desert washes and associated xeropriarian habitat that may function as movement corridors and habitat for jaguars, ocelots, and western yellow-billed cuckoos. In addition, the parcels are located between cuckoo habitats in the Whetstone Mountains and along the San Pedro River, so cuckoos may cross the property when moving between habitats. *See supra* section III.A.1. Developing the expansion parcels in addition to the Whetstone parcel could compound effects on these species' movement corridors and patterns in the area.

The aforementioned effects caused by the modification of the proposed development trigger the Corps' and FWS's duty to reinitiate consultation.

D. The Corps and FWS did not reinitiate consultation on the Section 404 permit.

FWS sent the Corps a draft letter dated July 14, 2015 notifying the Corps that the project "may affect" the northern Mexican gartersnake and western yellow-billed cuckoo and their critical habitats, and "could also affect" the southwestern willow flycatcher and its critical habitat. FWS letter at 1–5. FWS also recommended that the Corps "reconsider[]" the project's direct and indirect effects on the lesser long-nosed bat and on jaguar critical habitat. *Id.* at 5.

The Corps and FWS have failed to timely reinitiate and complete consultation on the Section 404 permit, in violation of the ESA. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.16.

IV. The Corps' Violations of ESA Sections 7(a) and 7(d).

By failing to reinitiate consultation, the Corps also is in violation of its duty under ESA Section 7(a) to insure that its action is not likely to jeopardize the continued existence of listed species or result in the adverse modification or destruction of critical habitat or proposed critical habitat. 16 U.S.C. § 1536(a)(2), (4). Additionally, by continuing to authorize fill activities under the Section 404 permit prior to the completion of reinitiated consultation with FWS, the Corps is

violating ESA Section 7(d)'s prohibition on irreversible or irretrievable commitment of resources. 16 U.S.C. § 1536(d).

V. Conclusion

For the above stated reasons, the Corps and FWS have violated and remain in ongoing violation of the ESA. If these violations of law are not cured within sixty days, the Center for Biological Diversity, Sierra Club, Maricopa Audubon Society, Tucson Audubon Society, Cascabel Conservation Association, and Lower San Pedro Watershed Alliance intend to file suit for declaratory and injunctive relief, as well as for attorney and expert witness fees and costs. 16 U.S.C. § 1540(g).

If you believe any of the foregoing is in error, have any questions, or would like to discuss this matter, please do not hesitate to contact me.

Sincerely,

Christopher D. Eaton

Earthjustice

633 17th Street, Suite 1600

Denver, Colorado 80202

(303) 623-9466

ceaton@earthjustice.org

Attorney for Center for Biological Diversity, Sierra Club, Maricopa Audubon Society, Tucson Audubon Society, Cascabel Conservation Association, and Lower San Pedro Watershed Alliance

Business Addresses for Named Organizations

Center for Biological Diversity P.O. Box 1178 Flagstaff, AZ 86002

Sierra Club 514 W. Roosevelt Street Phoenix, AZ 85003

Maricopa Audubon Society 13585 N. 92nd Place Scottsdale, AZ 85260

Tucson Audubon Society 300 E. University Boulevard, #120 Tucson, AZ 85705

Cascabel Conservation Association 6146 N. Canyon Road Benson, AZ 85602

Lower San Pedro Watershed Alliance P.O. Box 576 Mammoth, AZ 85618

EXHIBIT 1

AESO/SE 02EAAZ00-2015-I-0600 02EAAZ00-2015-CPA-0021

July 14, 2015

Sallie Diebolt Chief, Arizona Branch Department of the Army Los Angeles District, Corps of Engineers Arizona-Nevada Area Office 3636 North Central Avenue, Suite 900 Phoenix, Arizona 85012-1939

RE: Endangered Species Act Consultation on the Department of the Army Permit for Whetstone Ranch as it Relates to the Villages at Vigneto, Cochise County, Arizona (Permit Number 2003-00826-SDM)

Dear Ms. Diebolt:

We have become aware of a large residential development (28,000 dwelling units on approximately 12,324 acres, with associated commercial and recreational facilities) entitled The Villages at Vigneto, proposed to be constructed in the area partially covered by a Department of the Army Permit (Permit Number 2003-00826-SDM) signed on June 21, 2006. The 2006 permit authorized the discharge of dredged and/or fill material into 51 acres of waters of the United States and around unnamed washes in Sections 31, 32, and 33, Township 17 South, Range 20 East; and Sections 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, and 18, Township 18 South, Range 20 East, in Benson, Cochise County, Arizona. The discharges were permitted in order to develop the approximately 8,200-acre Whetstone Ranch as a master-planned community that was to include residential and commercial land uses, and associated stormwater management facilities, roadways, utilities, and recreational amenities. We have no records of interagency consultation pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, et seq.) (Act) for the Villages at Vigneto. We do note, however, that the May 17, 2004, Public Notice for the previously-proposed Whetstone Ranch included a preliminary determination that the action, as proposed at that time, would not affect threatened or endangered species or their critical habitat.

This letter is to alert you that this project, under either the prior Whetstone Ranch or current Villages at Vigneto configuration, may affect two species that have been listed since your previous "no affect" determination; and (2) constitutes our official recommendation that you request interagency consultation on your permit issuance.

Direct Effects

Western Yellow-billed Cuckoo

The western yellow-billed cuckoo was listed as threatened on October 3, 2014 (79 FR 59992); critical habitat for the species was proposed on August 15, 2014 (79 FR 48548). The upper San Pedro River is occupied by the largest population of yellow-billed cuckoos in Arizona and one of the largest in the western Distinct Population Segment (79 FR 59992). Proposed critical habitat exists along the river adjacent to the area subject to your June 21, 2006, permit. The species has been documented nesting in velvet mesquite (*Prosopis velutina*) woodlands approximately 0.8 kilometer (km) from the San Pedro River near Charleston (M. Halterman, pers. comm. 2015). Cuckoos exhibit large, undefended territories around the nest sites. Home ranges averaged 82 hectares (ha) in a study on the Rio Grande (Sechrist *et al.* 2009) and 51 ha in a study on the upper San Pedro River (Halterman 2009) using the Minimum Convex Polygon method. The species can travel greater than 1.7 km per day or greater than 3 km during the breeding season based on telemetry data (Sechrist *et al.* 2009).

We have examined aerial imagery of the project area and it appears that similarly suitable xeroriparian nesting and foraging habitat exists in the numerous ephemeral channels and portions of the uplands within the project area. Levick *et al.* (2008) includes descriptions of the ecological value of such ephemeral streams as well as information indicating that they are relatively more susceptible to disturbance than perennial streams.

Moreover, yellow-billed cuckoos have been documented breeding in Madrean evergreen woodland adjacent to ephemeral streams in the Patagonia Mountains (WestLand, Inc. 2013a and 2013b). Madrean evergreen woodlands also exist in the Whetstone Mountains immediately west of the project area, making it more likely that yellow-billed cuckoos occur in the intervening habitat between the mountain range and the San Pedro River, which necessarily includes the project area.

Yellow-billed cuckoo habitat exists in and adjacent to the project area and there is a reasonable likelihood that the species occurs on the site. We do not consider the partial avoidance and/or small buffering of ephemeral washes described in the *Habitat Mitigation and Monitoring Plan ACOE File No. 2003-00826-SDM Whetstone Ranch* (Whetstone HMMP) (WestLand 2005) to be sufficient to ensure there are no direct or indirect effects to yellow-billed cuckoo habitat on the development site.

It is for the reasons described above that we have determined that it is reasonably certain that the proposed action may directly affect the yellow-billed cuckoo. We strongly recommend that section 7 consultation be requested by your agency.

Northern Mexican Gartersnake

The northern Mexican gartersnake (*Thamnophis eques megalops*) was listed as threatened on July 8, 2014 (79 FR 38678); critical habitat was proposed on July 10, 2014 (79 FR 41550). The

upper San Pedro River is considered occupied by the species, and proposed critical habitat exists along the river adjacent to the area subject to your June 21, 2006, permit. The species has been documented in semidesert grasslands up to 1 mile (1.6 km) from the nearest known aquatic sites on the Appleton-Whittell Research Ranch in the Babocomari River watershed (J. Servoss pers. comm. 2015). The species' presence in terrestrial habitat may be due, in part, to the presence of thermal cover and hibernacula and/or prey, including reptiles, toads, rodents, and invertebrates. There is a reasonable potential for the species to be present in the project area and/or for its habitat to be indirectly affected (as described in subsequent analyses).

Indirect Effects

We are also concerned with the potential indirect effects of the proposed action. The Act's implementing regulations at 50 CFR §402.02 define the action area to be assessed for potential impacts to listed species or critical habitat as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." Further, the "effects of an action" are defined in 50 CFR §402.02 as "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action," where interrelated actions are those that are "part of a larger action and depend on the larger action for their justification", and interdependent actions are those that "have no independent utility apart from the action under consideration." The regulations' background narrative (see Page 19932) specifically states that the "but for" test should be used to assess whether an activity is interrelated with or interdependent to the proposed action.

One category of indirect effects pertains to the potentially altered surficial hydrology of the site as it relates to the maintenance of aquatic, xeroriparian, and mesoriparian habitat in downstream areas (see Stromberg et al. 1996), including areas occupied by yellow-billed cuckoos and northern Mexican gartersnakes. Levick et al. (2006) investigated the potential impact of residential development of Whetstone Ranch - encompassed within the Villages at Vigneto project area – considering a negative impact to be any increase in surface runoff and sediment yield (Kepner et al. 2004). Anticipated adverse environmental consequences from such increases may include degraded water quality from sediment and pollutant transport, erosion and alteration of the stream channel, habitat destruction, decreased biological diversity, and increased flooding. The hydrologic modeling results found in Levick et al. (2006) indicated that significant increases in both runoff and sediment yield were likely at the San Pedro River mainstem under the Whetstone Ranch development scenario. Given the presence of yellow-billed cuckoos, northern Mexican gartersnakes, and the species' proposed critical habitats in the San Pedro River immediately downstream from the proposed development, we consider that the Whetstone Ranch proposal or the updated Villages at Vigneto proposal may affect these species and again strongly recommend that consultation be requested by your agency. We also note that, should such impacts propagate a sufficient distance downstream, they could also affect endangered southwestern willow flycatchers (Empidonax traillii extimus) and critical habitat on the middle and lower reaches of the San Pedro River.

The other category of indirect effects pertains to the withdrawal of groundwater to serve residential and commercial development at the project site. It is likely that an appreciable

Sallie Diebolt Chief, Arizona Branch

volume of groundwater will be required to serve the development. If we assume a per capita water demand of 118 gallons (0.132 acre-feet/per day (AFD)) (GUAC, 2006) and two residents per each of the 28,000 dwelling units, we would anticipate at least 7,400 acre feet per annum (AFA) (approximately) would be withdrawn from the groundwater basin. This groundwater pumping would not occur but for the residential development.

Haney and Lombard (2005) provided indirect evidence that the floodplain alluvial aquifer at Three Links Farm, a conservation property on the San Pedro River downstream of Benson, is maintained by interbasin transfer of groundwater from the Benson Area; local mountain-front recharge is of insufficient volume to explain the quantities of alluvial water present at the site. Baseline deficit groundwater pumping was estimated to be 1,300 AFA in 2002 (Arizona Department of Water Resources, personal communication as referenced in Haney and Lombard 2005) in the Benson sub-area of the Upper San Pedro groundwater basin in which the proposed project is situated. If the large groundwater withdrawals required to serve the Villages at Vigneto development curtails this presumed subflow, we anticipate adverse effects to yellow-billed cuckoos (and the cuckoo's proposed critical habitat) as well as southwestern willow flycatchers (and the flycatcher's critical habitat in the middle and potentially lower reaches of the San Pedro River). We again recommend that consultation be requested in order to address these effects to listed species and proposed and final critical habitats.

Effects of Interrelated and Interdependent Actions

We are not aware if the site is currently served by electric lines, though we completed informal consultation for a 65 kilovolt (Kv) power line intended to serve Whetstone Ranch on November 8, 2000 (File Number 22410-2001-I-0018). If this power line is intended solely to serve what is now known as the Villages at Vigneto development, it would lack independent utility. If the power line has not yet been constructed, its effects, if any, should be considered part of the proposed action.

The management of the off-site mitigation lands described in the Whetstone HMMP is inseparable from the development of the project site and is thus an interdependent action the proposed action. We have concerns and recommendations based on implementation of the interdependent HMMP.

Yellow-billed Cuckoo

The maps included within the Whetstone HMMP also display an off-site mitigation parcel adjacent to the San Pedro River. Activities at this parcel represent interrelated actions to the Whetstone Ranch/Villages at Vigneto proposal. The site contains western yellow-billed cuckoo habitat and is at least partially within proposed critical habitat. Various management activities are associated with the mitigation lands, including vegetation management. The Whetstone HMMP specifically proposes a program to remove saltcedar. Saltcedar, or tamarisk (*Tamarix* spp.) can serve as yellow-billed cuckoo habitat, particularly when interspersed with native xero-and mesoriparian plant species. This control program is not wholly beneficial, as it may affect cuckoos in the short term.

Northern Mexican Gartersnake

We reiterate that the San Pedro River is considered occupied by northern Mexican gartersnakes, and has been proposed as critical habitat for the species. The uplands landward from the river also exhibit a high likelihood of northern Mexican gartersnake occurrence, and management activities may affect the species. We again recommend consultation be requested.

Other New Information

We also note that the project area for the Villages at Vigneto (12,324 acres) is appreciably larger than the area permitted for the Whetstone Ranch (8,200 acres) and thus, in addition to new analyses of effects to yellow-billed cuckoos, northern Mexican gartersnakes (and their proposed critical habitats), any effects to threatened or endangered species or their critical habitats previously analyzed by your agency in support of the June 21, 2006, permit decision should also be reconsidered in light of the larger affected area. These direct and indirect effects include, but are not limited to: (1) potential occurrence of panniculate agaves, the forage resource for the endangered lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*); and/or (2) the adjacency of the proposed action to designated critical habitat for the jaguar (*Panthera onca*) in the Whetstone Mountains.

It also appears that the appreciably expanded project area and the listings of the yellow-billed cuckoo and northern Mexican gartersnake and their respective proposed critical habitats, constitute significant new information as stated under Item 5(c) under the heading Further Information in your June 21, 2006, Department of the Army Permit. To summarize, Item 5 is entitled Reevaluation of Permit Decision, and states that your "... office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to..." The circumstance stated in Subsection c of Item 5 regards "...[s]ignificant new information surfaces which this office did not consider in reaching the original public interest decision."

Given this new information regarding effects to threatened and endangered species and critical habitat, as well as the appreciable increase in the scale of the project, we request said reevaluation of the permit decision. Moreover, we request notification of the reevaluation (i.e. a revised or new Public Notice) so that we may pursue our authorities under and in accordance with: (1) the Fish and Wildlife Coordination Act (48 Stat. 401, as amended U.S.C. 661 *et. seq.*); (2) Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712 40 Stat. 755, *et seq.*); and/or (3) the 1992 Clean Water Act section 404(q) Memorandum of Agreement between the Department of the Interior and the Department of the Army.

We are available to meet with you to discuss these issues. Please refer to file numbers 02EAAZ00-2015-I-0600 and 02EAAZ00-2015-CPA-0021 in any future contacts or correspondence.

Sallie Diebolt Chief, Arizona Branch

If we can be of further assistance, please contact Jason Douglas at 520-670-6150 (x226) or Jean Calhoun at 520-670-6050 (x223).

Sincerely,

Steven L. Spangle Field Supervisor

cc (electronic):

Jean Calhoun, Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ Jason Brush, Wetlands Section Supervisor, Environmental Protection Agency, San Francisco, CA Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ (pep@azgfd.gov) Raul Vega, Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ

W:\Jason Douglas\Letter to USACE re Villages at Vigneto 2003-00826-SDM-JMD July 14, 2015.docx:cgg

Literature Cited

- Groundwater Users Advisory Council (GUAC) of the Prescott Active Management Area, Safe-Yield Subcommittee. 2006. Final Report on Safe-Yield Impediments, Opportunities, and Strategic Directive.
- Haltermann, M. 2015. Personal communication between M. Haltermann, Southern Sierra Research Station and H. Swanson, Bureau of Land Management, and S. Sferra, U.S. Fish and Wildlife Service.
- Haney, J. 2005. The lower San Pedro River: hydrology and flow restoration for biodiversity conservation. *In* Gottfried, GJ., B.S. Gebow, L.G. Eskew, C.B. Edminster. Connecting mountain islands and desert seas: biodiversity and management of the Madrean Archipelago II. Proc. RMRS-P-36. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station: 311-315
- Haney, J. and J. Lombard. 2005. Interbasin Groundwater Flow at the Benson Narrows, Arizona. Southwest Hydrology. March/April 2005: 8-9.
- Kepner, W. G., Semmens, D.J., Bassett, S.D., Mouat, D.A., Goodrich, D.C. 2004. Scenario Analysis for the San Pedro River, Analyzing Hydrologic Consequences of a Future Environment. Environmental Monitoring and Assessment 94: 115-127.
- Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D. P. Guertin, M. Tluczek, and W. Kepner. 2008. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. U.S. Environmental Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.
- Levick, L., D. Semmens, D. Goodrich, W. Kepner, J. Brush, R.A. Leidy, and E. Goldmann. 2006. Simulated Changes in Runoff and Sediment in Developing Areas near Benson, Arizona. USDA/ARS Southwest Watershed Research Center and U.S. Environmental Protection Agency. 21 pp.
- Sechrist, J., V. Johanson, and D. Ahlers. 2009. Western Yellow-billed Cuckoo Radio Telemetry Study Results Middle Rio Grande New Mexico 2007-2008. U.S. Bureau of Reclamation, Technical Service Center, Denver, CO.
- Servoss, J. 2014. Personal communication between J. Servoss and J. Douglas, Fish and Wildlife Biologists. U.S. Fish and Wildlife Service. Tucson, Arizona.
- Stromberg, J. C.; R. Tiller; B. D. Richter. 1996. Effects of groundwater decline on riparian vegetation of semiarid regions: the San Pedro River, Arizona, USA. Ecological Applications 6: 113-131.

- U.S. Fish and Wildlife Service. 2014a. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (*Coccyzus americanus*); Final Rule. Federal Register 79: 59992-60038.
- U.S. Fish and Wildlife Service (FWS). 2014b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo; Proposed Rule. Federal Register 79(158): 48548-48652.
- U.S. Fish and Wildlife Service. 2014c. Endangered and Threatened Wildlife and Plants; Threatened Status for the Northern Mexican Gartersnake and Narrow-Headed Gartersnake; Final Rule. 79 FR 38678-38746.
- U.S. Fish and Wildlife Service. 2013. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Northern Mexican Gartersnake and Narrow-Headed Gartersnake; Proposed Rule. 78 FR 41550-41608.
- U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. Endangered Species Consultation Handbook Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act.
- WestLand Resources, Inc. 2013a. Revised 2012 Survey for Yellow-billed Cuckoo (*Coccyzus americanus*) in the Patagonia Mountains, Near Harshaw, Arizona. Prepared for Arizona Minerals, Inc. Revised April 2013. 43 pp.
- WestLand Resources, Inc. 2013b. Survey for Yellow-billed Cuckoo (*Coccyzus americanus*) in the Patagonia Mountains, Near Harshaw, Arizona. Prepared for Arizona Minerals, Inc. Revised December 2013. 153 pp.
- WestLand Resources, Inc. 2005. Habitat Mitigation and Monitoring Plan ACOE File No. 2003-00826-SDM Whetstone Ranch. Prepared for: Whetsone Partners LLP. 31 pp. with figures.