



March 22, 2023

**VIA EMAIL AND CERTIFIED MAIL**

Secretary Debra A. Haaland  
U.S. Department of the Interior  
1849 C Street NW  
Washington, DC 20240  
doiexecsec@ios.doi.gov

Director Martha Williams  
U.S. Fish & Wildlife Service  
U.S. Department of the Interior  
1849 C Street NW  
Washington, DC 20240  
Martha\_Williams@fws.gov

**Re: Sixty Day Notice of Intent to Sue for Violations of the Endangered Species Act;  
Improperly Determining Endangered Status for Dixie Valley Toad  
(*Anaxyrus williamsi*)**

Dear Secretary Haaland and Director Williams,

On behalf of Ormat Nevada Inc. (“Ormat”), we inform you of our intent to file a civil suit against the Secretary of the Interior and the U.S. Fish and Wildlife Service (the “Service”) for violations of the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531–44, concerning the Service’s listing of the Dixie Valley Toad (“DVT” or the “toad”) as endangered, 87 Fed. Reg. 73,971, 73,986 (Dec. 2, 2022), despite evidence that the species is not *currently* in danger of extinction. In making that listing, the Service failed to consider the best available scientific and commercial information regarding Ormat’s Dixie Valley Geothermal Project (the “Project”) operations and the hydrogeological character of the Dixie Valley springs. Instead, the Service at every turn and without substantiation assumed the worst-case scenario and listed the toad as endangered. The Service’s assumptions and uninformed projections violate the ESA.

This letter is provided to you pursuant to the 60-day notice requirement of 16 U.S.C. § 1540(g)(2)(C). Ormat intends to file suit seeking declaratory and injunctive relief, as appropriate, to correct and enjoin the continued actions by the Service in violation of the ESA and its implementing regulations. The Service failed to follow its own regulations when it improperly listed the toad as endangered. Pursuant to 16 U.S.C. § 1540(g)(4), we will also seek legal fees and costs associated with this action. This correspondence details only those violations of the ESA requiring pre-suit notice. Ormat may assert additional claims or causes of action under the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 551 *et seq.*, the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321, *et seq.*, or other applicable statute, regulation, or law, including additional ESA violations.

**ORMAT TECHNOLOGIES, INC.**

6140 Plumas St., Reno, NV 89519-6075, USA • +1-775-356-9029 •  
ormat@ormat.com

ormat.com



## **I. Background**

### **A. Ormat's Interests in the Listing Decision**

Ormat operates several geothermal energy production facilities in Nevada. Ormat has a significant interest in the listing of the DVT as endangered because it implicates Ormat's planned Project in Dixie Valley. The Project will produce clean geothermal energy for Nevada. That Project has been significantly delayed and its construction and operations have been modified (and are likely to be further modified) as a result of the listing. Further, Ormat committed to taking substantial steps to preserve the toad's habitat during the construction and operation of the Project and is correspondingly committed to the toad's preservation. Nonetheless, the Service identified Ormat's planned Project as the largest threat to the Dixie Valley toad in the Service's listing decision. But the Service's listing of the toad was based on an outdated Project design, inflated possible harms, and disregard for Ormat's mitigation plan. The resulting decision directly and significantly affects Ormat's proposed Project and misconstrues the Project under construction as a current threat to the toad.

### **B. The Dixie Valley Toad**

The DVT was historically considered part of the Western toad species (*A. boreas*). It was determined to be a unique species in 2017. This differentiation occurred nine years after the area in and around the Dixie Meadows springs was leased for geothermal development, seven years after Project exploration began, and the same year public comment opened on the Project's draft Environmental Assessment. The DVT is demonstrably smaller than other Western toads but limited additional information is known of their population or life history. *Special Species Assessment ("SSA")* at 14, 16, U.S. FISH & WILDLIFE SERVICE (Dec. 1, 2022).

What *is* known about the toad is that it is only currently known to exist in the 122-spring Dixie Meadows complex within Dixie Valley in Churchill County, Nevada. Dixie Meadows springs are varied in "temperatures and water chemistry," which "depend[]" on where the water is originating from and potentially mixing." *Id.* at 19. Despite this variation, "[a]dult toads currently have high occupancy rates and are generally more likely than not to occur across the Dixie Meadows wetlands." Endangered Species Status for the Dixie Valley toad, 87 Fed. Reg. 73,971, 73,986 (Dec. 2, 2022). The toad has thus far "maintain[ed] resilience to the historical and current environmental stochasticity present at Dixie Meadows." *Id.*

### **C. Listing Decision Procedural History**

On December 2, 2022, the Service listed the toad as endangered under the ESA. *Id.* at 73,989. The final listing rule followed the Service's earlier April 7, 2022 emergency listing decision, 87 Fed. Reg. 20336, and proposal for a final listing rule, 87 Fed. Reg. 20374. The Service's listing rationale was based primarily on the Bureau of Land Management's ("BLM") approval of and the forthcoming

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS



construction and operation of Ormat's Project. As originally approved in November 2021, the Project would produce 60 MW of energy from federal leases in the vicinity of the toad's habitat in Dixie Meadows springs.

Ormat submitted comments on the Service's April 7, 2022 emergency listing decision on June 6, 2022, and, along with BLM, participated in ESA Section 7 consultation with the Service. Ormat identified during that consultation that the Service, and its expert panel review, erroneously relied on dated Project documents that materially differed from the actual Project approved in November 2021. After Ormat submitted its comments on the emergency listing, Ormat decided to reduce the Project size and output by 80% to facilitate the newly initiated Section 7 consultation process between BLM and the Service. In October 2022, Ormat formally submitted a proposal to BLM for an amended authorization, and BLM issued a new Decision Record on December 16, 2022, rescinding the 60 MW project authorization and limiting the Project to approximately 12 MW. The Service was aware of and participated in discussions regarding the reduced Project size. But again, without regard to the Project documentation and reduced total Project capacity of 12 MW, the Service issued its final listing decision on December 2, 2022, retaining its reliance on the defunct pre-authorization Project documents and evaluating the impacts of a Project capacity of 60 MW.

#### **D. Endangered Species Act**

Under the ESA, a species is "endangered" if it "is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6). A species is "threatened," as opposed to endangered, when it is "*likely to become* an endangered species within the *foreseeable future* throughout all or a significant portion of its range." 16 U.S.C. § 1532(20) (emphases added). The Secretary is to make an endangered or threatened determination "solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species ...." 16 U.S.C. § 1533(b)(1)(A).

The Secretary must consider the following factors in determining whether a species is endangered or threatened: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purpose; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. 16 U.S.C. § 1533(a)(1). The ESA explicitly requires the Service to provide "a summary ... of the data on which [any] regulation is based" and to "show the relationship of such data to such regulation[.]" 16 U.S.C. § 1533(b)(8). An agency action is further required to articulate a rational connection between the facts found and the conclusions made. *Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1090 (9th Cir. 2005); *see also* 16 U.S.C. § 1533(b)(4).

As detailed herein, the listing of the DVT as an endangered species violates the ESA. The toad does not meet the definitional standard for a threatened—let alone endangered—species, and the Service

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS



failed to base its decision on the best scientific and commercial data available. The data on which the Service did rely does not support the Service’s conclusions, and the Service ultimately failed to consider a number of relevant factors.

## **II. The Service Violated the ESA**

### **A. The Service’s Listing of the Dixie Valley Toad Failed to Meet the ESA’s Definitional Standard for Either an Endangered or Threatened Species**

To be eligible to be listed as endangered, as opposed to threatened, a species must be *currently* facing extinction. The language of the statute is clear: it requires the Service to find that the species “is in danger of extinction.” 16 U.S.C. § 1532(6) (emphasis added). But the DVT does not currently face extinction—the Service cites no evidence of current habitat loss or changes in population health or numbers. Instead, the listing decision is based almost entirely on the anticipated construction and potential effects of *future* operations of Ormat’s Project. 87 Fed. Reg. at 73,972. Even at the time of the Service’s expert panel review in August 2021, the Project was proposed for completion at least a year after authorization. Final EA at 2-6. The Final Decision Record also added a phased development requirement that mandated Ormat to install a comprehensive ground and surface-water monitoring system, collect 12 months of monitoring data prior to operations, and operate the Project at 12 MW for at least 12 months without exceeding monitoring thresholds before any future development would be considered and permitted by BLM. Listing a species as currently endangered before any change in the species status is extremely uncommon and unsupported by the record here.

Even if the Service had concluded that the toad is only “*likely to become* endangered in the foreseeable future,” and therefore qualified as a threatened species, that finding too is unsupported by the record. The Service did not establish a timeframe constituting the “foreseeable future” for the toad and instead asserted that any changes due to the Project at any time to the Dixie Valley Springs would cause the toad’s extinction. But the cited research demonstrates the toad’s environment varies across the springs complex in both temperature and water quality and the toad is found throughout the complex. Despite this natural variation, the Service assumed “Dixie Valley toads will have no ability to withstand stochastic ... events.” SSA at 57. The Service cannot take every unknown about a species and assume, without a rational basis, that the unknowns would all contribute to the species’ extinction. “It is not enough for the Service to simply invoke ‘scientific uncertainty’ to justify its action.” *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1028 (9th Cir. 2011). The Service cannot rest on lack of knowledge about the toad and a misapprehension of the future impacts of Project to determine that the toad is *currently* at risk of extinction to support an “endangered” listing or will be in the foreseeable future to support a “threatened” listing.



## **B. The Service Failed to Base the Listing Decision on the Best Scientific and Commercial Data Available**

“The ESA requires an agency to use ‘the best scientific and commercial data available,’” and “[a]n agency’s failure to do so [also] violates the APA.” *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014) (citations omitted). The Service cannot “disregard available scientific evidence that is in some way better than the evidence it relies on.” *Id.* (cleaned up). But here, the Service was repeatedly informed that it was relying on outdated information about the Project and its Aquatic Resources Monitoring and Mitigation Plan (“ARMMP”), yet it declined to consider the available, updated, and “best” information.

### **1. The Service Ignored the Phased Development of the Project and Based the Listing on a Project Capacity Five Times Greater Than the Final Approved Project.**

The expert panel relied on information from January 2021 and made its projections based on the assumption that Ormat would simultaneously operate two 30 MW geothermal power plants. In turn, the Service’s Species Status Assessment (“SSA”) and listing decision relied on the opinions of the expert panel. This approach disregarded the BLM’s Decision Record that authorized a phased Project development approach that requires (1) installation of a comprehensive groundwater and surface-water monitoring system, (2) collection of 12 months of monitoring data prior to operations, and (3) operation of the Project at 12 MW for at least 12 months without exceeding monitoring thresholds before any future development would be considered and permitted.

The Service claims that the expert panel took phased development into account as part of its review, but this is demonstrably incorrect. BLM itself only considered phased development later in the process in response to comments and after the expert panel concluded its work. Moreover, the Service affirmed in the final rule that its listing was based on full Project production, claiming that “[e]ven if development is phased, the total production amount approved [of 60 MW] remains a relevant quantity for assessing risk.” 87 Fed. Reg. 73,976. The Service’s failure to adequately consider the phased Project development is ironic given that its own expert panel, apparently unaware of the actual approved plan, recommended at the end of its analysis that Ormat schedule the Project “in a stepped phase”—or, exactly how it was approved. *SSA*, App. C (“Elicitation Record”) at 41 (Aug. 2021). Failing to consider available Project information violates the ESA because “an agency may not entirely fail to develop appropriate projections where data ‘was available but [was] simply not analyzed.’” *NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 359 (E.D. Cal. 2007) (citation omitted).

Even if the Service considered the phased Project implementation, the Service’s final rule entirely ignored Ormat’s proposal to reduce the Project size to 12 MW. Ormat formalized its proposal to reduce the Project size from 60 MW to 12 MW, giving up 80% of its capacity, in a letter request to BLM in October 2022. Ormat’s proposal and BLM’s commitment to evaluate and make a decision by the end

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS



of 2022 were both made part of the record before the U.S. District Court for the District of Nevada in filings in October 2022. Indeed, as a result of Ormat’s proposal, BLM rescinded the 60 MW Project approval and issued a new one for 12 MW on December 16, 2022, just days after the final listing rule. Though the smaller Project was not approved until after the final listing rule, the Service was aware of the imminent change and wholly ignored it. The Service failed to consider these developing circumstances in its final decision, instead basing the listing on an expert panel review of a 60 MW project that no longer exists. The Service continued to rely on the 60 MW Project in the final listing rule, claiming that “the total production amount approved [of 60 MW] remains a relevant quantity for assessing risk,” although the impacts of the 12 MW project phase “will differ greatly” from the 60 MW phase that the Service assumed would eventually be developed. 87 Fed. Reg. 73,976. To the contrary, there is no longer a 60 MW Project and any assessment of risk associated with a Project five times larger than the approved Project capacity is completely irrelevant. This ignored information only reinforces Ormat’s arguments regarding the Service’s failure to apply the definitional requirements—a 60 MW Project cannot currently threaten the DVT because it literally does not exist. Thus, the Service failed to consider the best commercial information available, in violation of the ESA.

## **2. The Service Improperly Ignored or Discounted the Effectiveness of the Aquatic Resources Monitoring and Mitigation Plan.**

The Service knowingly relied on an expert panel review that, in turn, based its opinions on an earlier version of the Project’s ARMMP even after BLM and Ormat notified the Service of substantial changes to the final ARMMP addressing the Service’s specific criticisms. The expert panel repeatedly expressed concerns about the number of monitoring sites around the Dixie Valley spring complex, Elicitation Record at 11, 16–17, 40, and the frequency of BLM’s review of the data generated by monitoring, *id.* at 11, 16–17, 19, 40–41. BLM and Ormat directly responded to those comments by increasing the number of monitoring sites and committed to weekly data measurement at all sites in the November 2021 ARMMP. Despite this update, the Service repeated in the final rule its original statement that the ARMMP only provided “limited monitoring locations” and continued to assume that no mitigation would ever be implemented as a result of the increased monitoring. 87 Fed. Reg. 73,971, 73,989. The Service and its experts’ concerns were based on a different ARMMP and the Service failed to take into account the best scientific data available within the November 2021 ARMMP. Where the Service “selectively relied on ... data and failed to consider and evaluate the contrary data ... or adequately explain, in the SSA or 12-Month Finding, why they were disregarded,” the Service violated the ESA and the APA. *WildEarth Guardians v. Haaland*, 561 F. Supp. 3d 890, 901 (C.D. Cal. 2021).

### **C. The Service Failed to Demonstrate a Relationship Between the Data Underlying the Listing and the Regulation Adopted**

“In light of the data available to it during the rulemaking process,” the Service must have a “rational and reasonable basis” for its conclusions based on the data. *Alaska Oil & Gas Ass’n v. Pritzker*, 840 F.3d 671, 681 (9th Cir. 2016); 16 U.S.C. § 1533 (the listing must include “a description and

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS



evaluation of the reasons and data on which the finding is based”). The facts must support the agency’s conclusions, and the Service’s selective use of data, or reliance on substantial uncertainty does not support an endangered finding.

**1. There is no Evidence of the Likelihood of Urban or Water Development.**

In the Listing, the Service leaps to conclusions by citing possible harms, but then fails to substantiate how that harm could actually come to pass and impact the DVT. The Service cites to the possibility of urban and municipal water development impacting Dixie Valley but fails to adequately address comments that both “risks” have almost no possibility of impacting the springs. 87 Fed. Reg. 73,974–75. No urban development can occur in Dixie Valley due to Federal land withdrawals, and the water basin is similarly over-appropriated such that further water development is highly unlikely. The Service does not explain how abstract hypothetical harms, with little or no chance of occurring, result in the current endangered status of the species, or even a finding that the species is “likely to become” endangered in the foreseeable future.

**2. The Service Relied on Uncertainty and Failed to Consider Site-Specific Well Data.**

The Service ignored site-specific well and flow test data that supported Ormat and BLM’s conceptual hydrogeological model and demonstrated that the deep geothermal reservoir for Project development is not directly connected to the Dixie Valley spring complex. Instead of crediting this site-specific data, the Service based its decision on a feeling that it was “not a coincidence” that the springs lie above the Piedmont fault that runs north to south through Dixie Valley, which in the Service’s view *must* be the source of geothermal fluid at the springs. But the data is clear that there is no permeable zone in the Piedmont fault beneath the springs, and geothermal input to the springs instead comes from lateral flow through the shallow alluvium originating from upwellings along the eastern flank of the Stillwater Range west of the springs. *See* Final EA, App’x L at L-4 to L-6; *id.*, App’x M at M-4 (“the tracers added to the injection water ... did not indicate a hydraulic connection between injection wells and spring sources that were monitored”).

The Service’s attempt to discount the value of the 2017 flow test, 87 Fed. Reg. at 76,976, is unconvincing given that the production and injection wells tested are the precise wells that will be utilized for the 12 MW facility, and the lack of any observed impact to the springs during the 46-day flow test is the best available scientific evidence demonstrating a lack of direct connection between the deep geothermal reservoir and the shallow springs. The flow test itself contributed to BLM’s hydrogeological model, which was also built on existing hydrological and geological datasets from numerous studies of the Dixie Valley over the past 35 years. *See* ARMMP at 6. The flow test confirmed the model’s prediction that the deep geothermal reservoir is not directly connected to the springs and that the springs will not be impacted by geothermal production. *See* Final EA at 3-35 (observing that the test indicated “there were no apparent influences of pumping and injection activities observed at [the

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS



springs]”); *id.* App. H, Hydrogeologic Conceptual Model, App. D at D-5 (“Geochemical and stable isotope data suggests that there is not a direct hydraulic connection between the geothermal reservoir and the springs ....”).

Although the Service acknowledges in the final rule that it initially misstated hydrogeological aspects of the Piedmont fault near the springs complex, 87 Fed. Reg. at 73,971, 73,978, and that there may be input to the springs from the west to east shallow flows, *id.* at 73,978, the Service holds fast to the conclusion that “significant uncertainty remains regarding the primary and/or significant source or sources of the thermal springs.” *Id.* at 73,977. This alleged “uncertainty” cannot survive in the face of actual data pointing to the shallow source and lack of direct connection between the springs and the deep geothermal reservoir. At the very least, the “significant uncertainty” does not substantiate the certainty with which the Service concludes that geothermal production will immediately (or even foreseeably) impact the Dixie Valley springs.

Even the data that the Service did rely on fails to support the Services’ hydrogeological conclusions. The Service acknowledged that there is a large variation in temperature throughout the springs complex and estimated that geothermal fluids make up, at most, 30% of the water in the springs complex. Elicitation Record at 28. Therefore, even in the worst-case scenario, the Service projected 70% of the water in the springs would be *unaffected* by the Project. In other words, spring flows will continue—they are not anticipated to dry up. The Service further does not explain how a possible variation in the temperature of 30% of the water flowing into the springs would be noticeable or impactful to the DVT, and the toad’s resilience to temperature variation is a characteristic the Service deemphasized without explanation. *See infra* Section II.D.1. Instead, the Service simply assumes catastrophe.

### **3. The Service Disregarded the Mitigation Plan and Made Incorrect Assumptions Regarding Dissimilar Geothermal Projects.**

The Service explicitly did not evaluate the ARMMP’s various mitigation measures, Elicitation Record at 12, which include directly addressing a change in temperature by pumping hot water into the springs. Instead of explaining how the Project’s mitigation could fail or demonstrating why the small amount of potentially affected water could impact the toad, the Service cited to prior literature that asserts broadly, without foundation, that geothermal development as a concept presents the “greatest threat to the persistence of the Dixie Valley toad.” 87 Fed. Reg. 73971, 73984. The Service again identified information in the abstract but failed to reasonably connect those facts to the assumed outcome. The specific plans within the ARMMP to mitigate impacts to the Dixie Valley springs cannot be rebutted by general assertions of the danger of geothermal development or comparison to the impacts of other clearly distinguishable projects. Indeed, of the projects cited by the Service’s expert panel review as alleged comparators in the proposed and final listing rules, most are steam plants that result in consumptive water use—easily distinguished from the Dixie Valley Project. Ormat’s state-of-the-science binary technology avoids consumptive use and instead recycles the geothermal fluid back to the reservoir for

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS





reheating. Indeed, maintaining temperature and geothermal reservoir pressure are essential to the Project's success.

The only Project cited that uses binary technology is Ormat's Jersey Valley plant. Although the Service prevaricated that "every geothermal field is unique," it consistently pointed to the Jersey Valley project (1) as evidence that *the Dixie Valley* Project has similar hydrogeologic characteristics, *id.* at 73,980, (2) as evidence the Project will similarly cause the springs to cease flowing, *id.* at 73,983–84, (3) as a justification for its low confidence in Ormat's monitoring and mitigation, *id.* at 73,988, (4) as support for the expert panel's timeline of expected impacts for the Project, Elicitation Record at 12, 29, and (5) as justification for the expert panel's lack of confidence in Ormat's monitoring plan, *id.* at 15, 42. But as Ormat noted in its comments, the Jersey Valley project had a key distinguishable circumstance in that shortly after geothermal production began at the plant, injected fluids began to surface from a nearby improperly plugged and abandoned mineral exploration borehole (drilled 20 years earlier by a different company). Once aware of the issue Ormat immediately stopped using its nearby injection well,<sup>1</sup> which may have reduced reservoir pressure and lead to water failing to surface at the nearby small (35 to 75 gallons per minute) Jersey Valley Hot Spring. There is no risk of a similar occurrence in Dixie Valley where the production and injection wells for the 12 MW facility have already been flow tested. Moreover, Jersey Valley did not include a robust and comprehensive ARMMP, as the Dixie Valley Project does.

At the same time that the Service relied heavily on a distinguishable project in Jersey Valley, it refused to consider the similarities between Ormat's Project and other binary technology projects that did not have negative effects. Ormat pointed the Service to three projects where geothermal development has not affected aquatic surface resources. The Service declined to consider them because, unlike those projects, "the Dixie Meadows springs are not hydraulically isolated from the underlying geothermal reservoir by one or more low permeability layers." 87 Fed. Reg. 73,971, 73,979. To the contrary, the site specific well bore data demonstrates that the geothermal reservoir targeted for development in Dixie Valley here is capped by a low permeability layer, which accounts for the lack of observable impacts to the springs during the 46-day flow test. *Also compare* Sorey 2000 at 707–08 (observing that the Coso Hot Springs were "traditionally utilized by local Native Americans" and correspondingly operated under "mitigation" requirements "in the event that geothermal development causes changes" to the springs and the result was "naturally occurring steam discharge has increased during [geothermal] development"), *with* 87 Fed. Reg. 73,971, 73,983 (listing three *other* projects discussed in the Sorey article that caused a reduction in nearby spring flow but did not have a referenced mitigation plan).

---

<sup>1</sup> Despite Ormat's prior immediate cessation of use of the injection well at Jersey Valley once it became aware of potential negative impacts to the Jersey Valley Hot Springs, the Service and its expert panel "question[ed] about the motivation to mitigate if measures ran counter to other operating goals of the plant." 87 FR 73971, 73987. At Jersey Valley, Ormat demonstrated it will cease use of the injection well to protect the surrounding environment *even without an applicable mitigation plan*, directly countering the Service's negative insinuations regarding Ormat's motivation to implement this Project's mitigation plan.



Moreover, the Service fails to explain its assumptions that all of Ormat's mitigation will be ineffective or, more inexplicably, that Ormat's mitigation commitments are a sham because Ormat lacks the "motivation" to implement them. 87 Fed. Reg. 73,971, 73,987. The Service violates the ESA when its conclusion is not "rationally related to the data ... presented" and fails to demonstrate that connection here. *Greenpeace v. Nat'l Marine Fisheries Serv.*, 237 F. Supp. 2d 1181, 1198 (W.D. Wash. 2002).

#### **D. Failure to Comply with Required Listing Procedures by Considering Relevant Factors**

The Service may not disregard available facts and "base its listings on speculation or surmise." *Bldg. Indus. Ass'n of Superior Cal. v. Norton*, 247 F.3d 1241, 1246–47 (D.C. Cir. 2001). But here, the Service ignores evidence demonstrating the DVT is resilient and unlikely to incur infections from far-off bullfrog populations, and disregards that the only provided climate change evidence indicates expected changes will enhance the toad's environment rather than hurt it. Because "an agency 'cannot ignore available biological information'" the Service violated the ESA in listing the DVT. *Ctr. for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945, 971 (N.D. Cal. 2010) (quoting *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988)).

##### **1. The Service Disregarded Toad Resilience Data.**

The Service insists the DVT lacks resiliency to changes in its environment despite substantial evidence to the contrary. There is a large variation in water temperature and quality throughout the Dixie Valley Spring complex. 87 Fed. Reg. 73,971, 73,987. If all the identified toads were limited only to the warmest areas, the Service's assertion would appear more defensible. But the SSA evidence demonstrates that toads are found all over the complex, in warm and cool water, irrespective of poor water quality. SSA at 46 (Figure 4.7). This is consistent with other research finding Western toad species are generally highly resilient to changes in the environment. The Service acknowledges that toads are "maintaining resilience to the historical and current environmental stochasticity," but does not explain how that historic resilience translates to a "low potential to adapt to environmental changes to its habitat" that might be caused and mitigated by the Project. 87 Fed. Reg. 73,971, 73,986.

##### **2. The Service Overstated Chytrid Fungus and Climate Change Risk.**

Aside from the Project, the Service identifies two other alleged risks to the DVT: infection from chytrid fungus and climate change. 87 Fed. Reg. 73,971, 73,989. But based on the Service's own evidence, the toad is unlikely to incur infections from far-off bullfrog populations and the only provided climate evidence indicates expected changes will enhance the toad's environment rather than hurt it. Regarding chytrid risk the Service admits in response to a comment that the only chytrid-infected bullfrogs are 10 km<sup>2</sup> from the Dixie Valley spring complex, but does not explain how a bullfrog would

---

<sup>2</sup> The Service alternately calculates 10 km as "6.2" miles and "5.7 miles." Compare 87 Fed. Reg. 73971, 73973 with 73990.



travel such a distance and live long enough to successfully infect the DVT. 87 Fed. Reg. 73,971, 73,973. Furthermore, a review of the cited literature demonstrates that the bullfrogs were identified as chytrid-infected over a decade ago, and there is no evidence that the infection has spread or will spread. *See* 87 Fed. Reg. 73,971, 73,990 (citing Forrest 2013); Forrest 2013 at 1 (“We surveyed populations of Dixie Valley toads between 2009–2012, and also tested individuals for [chytrid] in 2011–12.”).

The Service further forecasts that climate change will negatively affect the DVT’s habitat by decreasing spring flow, but substantiates that harm by identifying information that indicates climate change will *increase* precipitation. The Service does not explain how a forecasted “annual precipitation ... percent increases of 4.5 to 7.7 percent” will create a decrease in spring flows, particularly where the Service concedes that “the degree to which springflows are affected by climate change largely depends on influences on surface water processes and precipitation.” *SSA* at 49, 52. The Service may be conflating a decrease in precipitation in another part of the Southwestern United States due to climate change and attributing it to the Dixie Valley springs complex. In any event, the Service appears to have failed to consider its own data when reaching its conclusions that the DVT is at risk of chytrid infection and lowered spring flows due to climate change.

### **3. The Service Failed to Respond to Comments.**

Ormat raised many of these issues before the Service issued its decision, but the Service failed to sufficiently consider and respond to these comments. Because 16 U.S.C. § 1533(b)(4) incorporates the APA requirements into the ESA process for issuing listing decisions, the Service’s failure to adequately respond to Ormat’s comments also violated the ESA. *See* 5 U.S.C. § 553(b), (c).

### **III. Conclusion**

The purpose of this notice letter is to afford the Department and the Service an opportunity to come into compliance with the ESA’s requirements. Please let us know if the Department and the Service intend to do so.

If the Department and the Service decline to do so, then they will be in continuing violation of the ESA’s substantive and procedural requirements in listing the Dixie Valley Toad as endangered. In that instance, Ormat intends to file suit in 60 days’ time to challenge these deficiencies. Please contact me with any questions concerning this notice and to discuss possible options to resolve the issues presented here without litigation.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'J. Wcelfel', written over a circular stamp.

Jessica Wcelfel, General Counsel,  
Chief Compliance Officer & Corporate Secretary

Secretary Debra A. Haaland, U.S. DOI  
Director Martha Williams, U.S. FWS