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 13

14 IN THE UNITED STATES DISTRICT COURT  
 15 FOR THE NORTHERN DISTRICT OF CALIFORNIA  
 16 OAKLAND DIVISION  
 17

18 **STATE OF CALIFORNIA; STATE OF**  
 19 **COLORADO; STATE OF**  
 20 **CONNECTICUT; STATE OF**  
 21 **DELAWARE; STATE OF HAWAII;**  
 22 **STATE OF ILLINOIS; STATE OF**  
 23 **MAINE; STATE OF MARYLAND;**  
 24 **COMMONWEALTH OF**  
 25 **MASSACHUSETTS; ATTORNEY**  
 26 **GENERAL DANA NESSEL ON BEHALF**  
 27 **OF THE PEOPLE OF MICHIGAN;**  
 28 **STATE OF MINNESOTA; STATE OF**  
**NEVADA; STATE OF NEW JERSEY;**  
**STATE OF NEW MEXICO; STATE OF**  
**NEW YORK; STATE OF OREGON;**  
**STATE OF RHODE ISLAND; STATE OF**  
**VERMONT; COMMONWEALTH OF**  
**VIRGINIA; and STATE OF WISCONSIN;**

4:19-cv-00872-HSG

**DECLARATION OF SULA ELIZABETH  
 VANDERPLANK IN SUPPORT OF  
 MOTION FOR PRELIMINARY  
 INJUNCTION CONCERNING EL  
 CENTRO PROJECT 1**

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Plaintiffs,

v.

**DONALD J. TRUMP**, in his official capacity as President of the United States of America; **UNITED STATES OF AMERICA; U.S. DEPARTMENT OF DEFENSE; PATRICK M. SHANAHAN**, in his official capacity as Acting Secretary of Defense; **MARK T. ESPER**, in his official capacity as Secretary of the Army; **RICHARD V. SPENCER**, in his official capacity as Secretary of the Navy; **HEATHER WILSON**, in her official capacity as Secretary of the Air Force; **U.S. DEPARTMENT OF THE TREASURY; STEVEN T. MNUCHIN**, in his official capacity as Secretary of the Treasury; **U.S. DEPARTMENT OF THE INTERIOR; DAVID BERNHARDT**, in his official capacity as Acting Secretary of the Interior; **U.S. DEPARTMENT OF HOMELAND SECURITY; KIRSTJEN M. NIELSEN**, in her official capacity as Secretary of Homeland Security;

Defendants.

1 I, Sula Elizabeth Vanderplank, declare as follows:

2 1. I have personal knowledge of the facts set forth in this declaration. If called as a  
3 witness, I could and would testify competently to the matters set forth below.

4 2. I am a postdoctoral fellow at the San Diego Zoo Global (SDZG), Institute for  
5 Conservation Research, and a freelance conservation scientist (Director of SUVA Research). San  
6 Diego Zoo Global has a focus on ending extinction worldwide. My postdoctoral position focuses  
7 on conservation of cross-border rare plants. I serve as adjunct faculty in the Biology Department  
8 of San Diego State University (SDSU) and at the Centro de Investigación Científica y Educación  
9 Superior de Ensenada (CICESE), a graduate school in Baja California, Mexico. I specialize in  
10 botany and conservation biology for the Southern California and Baja California regions,  
11 including the area along California's border with Mexico, and I have published many articles on  
12 the subject. The matters set forth in this declaration are based upon my personal knowledge, as  
13 well as my expertise in the California border region.

14 3. In addition to my work with SDZG and CICESE, I hold research associate  
15 positions at prominent regional research centers including: San Diego Natural History Museum  
16 (SDNHM) since 2012; Rancho Santa Ana Botanic Garden (RSABG) since 2011; and Cabrillo  
17 Marine Aquarium (CMA) since 2015.

18 4. I am also the scientific advisor to a non-profit organization in northwest Baja  
19 California – Terra Peninsular AC and I serve on the board of the non-profit organizations:  
20 California Botanical Society, Southern California Botanists, Conservación de Fauna del Noroeste  
21 AC (FAUNO), and for the research network “Next Generation of Sonoran Desert Researchers.” I  
22 am also a rare plant botanist for the California Native Plant Society (Baja California Chapter).

23 5. I have a Ph.D. in Plant Ecology, with minors in Conservation Biology and  
24 Biogeography from the University of California, Riverside (2013) where my dissertation focused  
25 on correlates of plant diversity in northwestern Baja California. My current research projects as  
26 part of my postdoctoral fellowship at the SDZG focuses on evaluating the conservation status of  
27 rare plants in Baja California, Mexico, and in particular, on plant species that are rare on both  
28 sides of the U.S./Mexico border. Specifically, we are developing conservation seed banks for

1 these plants, as well as taking samples for genetic research, and recording population data and  
2 threats for each plant occurrence.

3           6.           In this declaration, I provide my professional opinions regarding the biological  
4 impacts of the federal government’s border wall project at El Centro, California (herein El Centro  
5 Project 1). El Centro Project 1 has the potential to inflict irreparable and irreversible impacts to at  
6 least 23 plants of conservation concern, 13 of which are considered rare, threatened, or  
7 endangered in California, and are eligible for state listing. The El Centro Project 1 area includes  
8 near-pristine and fragile desert habitat that will be irreparably harmed by the Project.

9           7.           In developing my opinion about the biological impacts from El Centro Project 1, I  
10 have relied on documentation provided in the February 25, 2019, memorandum regarding  
11 “Request for Assistance Pursuant to 10 U.S.C. § 284” that the U.S. Department of Homeland  
12 Security (DHS) directed to the U.S. Department of Defense (DOD), in which DHS requests  
13 DOD’s assistance in constructing pedestrian fencing along approximately 218 miles of the U.S.-  
14 Mexico border. This includes El Centro Project 1, in Imperial County, California, which involves  
15 removing around 15 miles of vehicle barrier fencing and replacing it with pedestrian fencing that  
16 will be 18 to 30 feet tall. El Centro Project 1 also includes construction of roads and installation  
17 of lighting. In preparation for this declaration I have also reviewed the description of El Centro  
18 Project 1, as outlined in the “Determination Pursuant to Section 102 of the Illegal Immigration  
19 Reform and Immigrant Responsibility Act of 1996, as Amended,” that DHS published in the  
20 federal register (84 Fed. Reg. 21800). I also reviewed a description of the Project on DHS’s  
21 website that stated the pedestrian fencing will be a bollard wall. (See  
22 [https://www.dhs.gov/news/2019/05/15/dhs-issues-waivers-expedite-border-wall-projects-tucson-  
23 and-el-centro](https://www.dhs.gov/news/2019/05/15/dhs-issues-waivers-expedite-border-wall-projects-tucson-and-el-centro)).

24           8.           The construction and installation of pedestrian fencing as part of El Centro Project  
25 1 will cause significant environmental impacts by likely harming and killing rare, threatened and  
26 endangered plant species. Project activities include the construction of bollard fencing,  
27 improvements to a patrol road that will run the length of the fencing, and installation of lighting.  
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1 Construction activities are expected to include earthwork, excavation, fill, site preparation, and  
2 installation and upkeep of physical barriers, roads, supporting elements, drainage, erosion  
3 controls, and safety features. These activities will obliterate any plants and seeds found within  
4 the footprint of the construction activities.

5           9.           In addition to the direct impacts to plant species of conservation concern, there are  
6 likely to be serious secondary impacts from project construction such as soil compaction and the  
7 spread of invasive species. Disturbance favors invasive plant species, which quickly dominate  
8 and displace native plants. Many invasive species will reproduce vigorously and form a dense  
9 monoculture that can completely change the ecology of a region (e.g., invasion by annual grasses  
10 can enable fires to burn in desert ecosystems that have no adaptation to fire). Other likely  
11 secondary impacts include considerable erosion, sedimentation and air quality issues related to  
12 the earthwork, excavation and site preparation.

13           10.          The State of California has a rich history of geologic activity that has led to the  
14 formation of significant topographic variation, which results in areas of very different climate, not  
15 just at differing elevations, but on opposing sides of mountain ranges too, where a rain-shadow  
16 often forms. The California borderlands are no exception, with strong climatic gradients from the  
17 coast to the mountains and the eastern deserts beyond. Southern California borderlands (including  
18 Imperial County) are particularly special biologically because they include the northernmost  
19 range extensions of many of North America's rarest plants.

20           11.          Specifically, El Centro Project 1 is almost entirely situated in a region of near-  
21 pristine desert habitat and is home to a suite of rare plants (see table below). The area includes  
22 the transition from granites to desert as the border enters the lowlands and Sonoran Desert areas  
23 (where vehicular fencing is present).

24           12.          Notably, El Centro Project 1 includes part of the Jacumba Federal Wilderness area.  
25 (See Exhibit A to this declaration, which is a true and correct copy of a map of the Jacumba  
26 Wilderness Area from the U.S. Dept of the Interior, Bureau of Land Management). Wilderness  
27 areas "are final holdout refuges for a long list of rare, threatened, and endangered species, forced  
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1 to the edges by modern development. ....They are places where law mandates above all else  
2 that *wildness* be retained for our current generation, and those who will follow.” See the US  
3 Forest Service website for Managing the Land at [https://www.fs.fed.us/managing-](https://www.fs.fed.us/managing-land/wilderness)  
4 [land/wilderness](https://www.fs.fed.us/managing-land/wilderness). Federal Wilderness Areas have been protected under federal law since the  
5 Wilderness Act of 1964 was enacted, “*In order to assure that an increasing population,*  
6 *accompanied by expanding settlement and growing mechanization, does not occupy and modify*  
7 *all areas within the United States and its possessions, leaving no lands designated for*  
8 *preservation and protection in their natural condition, it is hereby declared to be the policy of the*  
9 *Congress to secure for the American people of present and future generations the benefits of an*  
10 *enduring resource of wilderness.*” The Jacumba Wilderness area was included in the National  
11 Wilderness Preservation System in 1994, and encompasses 31,357 acres.

12 13. A checklist of plants previously collected in the El Centro Project 1 region was  
13 generated using data from the San Diego County Plant Atlas (which includes Imperial County in  
14 its online resources). The checklist consists of a mere 54 different plant taxa (species and  
15 subspecies) which have been documented. This is certainly an underestimate of true site diversity  
16 and speaks to the lack of available data inside the project footprint. The borderlands are well  
17 known to be home to a wealth of biodiversity. During a single weekend in March 2019, citizen  
18 scientists documented 1,073 distinct plants and animals along the California/Mexico borderlands  
19 during the Border Bioblitz, 805 of which were plants ([https://www.inaturalist.org/projects/border-](https://www.inaturalist.org/projects/border-bioblitz-bioblitz-de-la-frontera-2019)  
20 [bioblitz-bioblitz-de-la-frontera-2019](https://www.inaturalist.org/projects/border-bioblitz-bioblitz-de-la-frontera-2019)). Desert ecosystems are notoriously difficult to inventory  
21 due to the high percentage of ephemeral species (approximately 30% or more) which are  
22 generally invisible for the majority of the year and may not germinate in years of low rainfall. A  
23 plant inventory has never been conducted in the El Centro Project 1 footprint, and a multi-season  
24 inventory would be necessary to adequately assess the biological diversity of the project area.

25 14. Imperial County is home to around 87 rare plants that are included in the  
26 California Native Plant Society (CNPS) Rare Plant Rankings. This program develops current and  
27 accurate information on the distribution and conservation status of California’s rare and  
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1 endangered plants and since 1968 has been the standard for information on the rarity and  
2 endangerment of the state flora. The program operates under a Memorandum of Understanding  
3 (MOU) with the California Department of Fish and Wildlife (CDFW) and facilitates broad  
4 cooperation in rare plant assessment and protection. The CNPS Rare Plant Botanist is housed at  
5 the Sacramento office of the CDFW's Biogeographic Data Branch and shares all data with the  
6 [California Natural Diversity Data Base](http://www.cnps.org/cnps/rareplants/ranking.php) (CNDDDB). See:  
7 <http://www.cnps.org/cnps/rareplants/ranking.php>. I describe the CNPS Rare Plant Rankings  
8 below.

9       15.       California Rare Plant Rank **1B: Plants Rare, Threatened, or Endangered in**  
10 **California and Elsewhere:** Plants with a California Rare Plant Rank of 1B are rare throughout  
11 their range with the majority of them endemic to California. Most of the plants that are ranked  
12 1B have declined significantly over the last century.

13       16.       California Rare Plant Rank **2B: Plants Rare, Threatened, or Endangered in**  
14 **California, But More Common Elsewhere:** Except for being common beyond the boundaries of  
15 California, plants with a California Rare Plant Rank of 2B would have been ranked 1B. From the  
16 federal perspective, plants common in other states or countries are not eligible for consideration  
17 under the provisions of the Federal Endangered Species Act.

18       17.       California Rare Plant Rank **3: Plants About Which More Information is Needed:**  
19 Plants with a California Rare Plant Rank of 3 are united by one common theme - we lack the  
20 necessary information to assign them to one of the other ranks or to reject them. Nearly all of the  
21 plants constituting California Rare Plant Rank 3 are taxonomically problematic.

22       18.       All of the plants constituting California Rare Plant Rank 1A, 1B, 2A, 2B, and 3 are  
23 eligible for listing under the California Endangered Species Act (CESA).

24       19.       California Rare Plant Rank **4: Plants of Limited Distribution - A Watch List:**  
25 Plants with a California Rare Plant Rank of 4 are of limited distribution or infrequent throughout  
26 a broader area in California, and their status should be monitored regularly. Few of the plants  
27 constituting California Rare Plant Rank 4 are eligible for state listing. Nevertheless, many of  
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1 them are significant locally. This is particularly significant for populations at the periphery of a  
2 species' range, and areas where the taxon has sustained heavy losses, which are often applicable  
3 in the U.S./Mexico border region.

4 20. Each rare plant also receives a threat rank, follow its listing designation:

- 5 • 0.1-Seriously threatened in California (over 80% of occurrences threatened / high  
6 degree and immediacy of threat)
- 7 • 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate  
8 degree and immediacy of threat)
- 9 • 0.3-Not very threatened in California (less than 20% of occurrences threatened / low  
10 degree and immediacy of threat or no current threats known)

11 21. To assess impacts to plants of conservation concern due to El Centro Project 1, I  
12 conducted a thorough review of relevant records, plant databases and studies. I also visited the El  
13 Centro Project 1 project area twice in 2019, in March and May. During the second site visit I  
14 took pictures in cardinal directions every half-mile along the border in the El Centro Project 1  
15 area. Using these images I have generated a map of the Project area with multiple points where  
16 photos were taken and high habitat quality was observed. I inserted a selection of these images  
17 from along the border on top of aerial imagery of the El Centro Project 1 area, to show the  
18 absence of development, construction and human impacts inside the Project area. This photo map  
19 that I created is attached as Exhibit B to this declaration. The only significant human impact at  
20 this time is the border patrol road that runs adjacent to the vehicle barrier.

21 22. Based on my analysis and site visits, El Centro Project 1 will likely cause impacts  
22 to plant species of conservation concern. These expected impacts are noted where plants have  
23 been documented in proximity to the border and are expected within the Project footprint,  
24 although conclusive data are not currently available because a comprehensive, seasonally-  
25 appropriate plant survey has not been conducted of the project site. In desert environments plants  
26 are often only present during certain times of the year, where seeds remain in the soil and can be  
27 expected to germinate and be impacted following heavy rains. (This is particularly probable for  
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1 annual plants, which live for only one short season and whose precise locations are more difficult  
 2 to avoid once their habitats are disturbed). Many plants in the area survive harsh conditions as  
 3 seeds in the soil. The seeds are alive and although difficult to detect, are equally susceptible to  
 4 impacts from construction. These impacts are called direct impacts under the National  
 5 Environmental Policy Act (NEPA).

7 23. Sensitive plants that live adjacent to the impact area, in fragile habitats that have a  
 8 high likelihood to suffer from dust, soil erosion, particulate deposition, and/or landscape  
 9 hydraulic alterations which may result from the installations, will also suffer indirect impacts.  
 10 Sensitive plants in the project footprint are also likely to suffer edge effects from the disturbance  
 11 and an increase in invasive species competing for resources. (Indirect Impacts under NEPA.)

12 24. The following table highlights the rare and endangered plants found in the El  
 13 Centro Project 1 site along areas of open border and vehicle fencing, including their CNPS  
 14 rankings (lists and threat ranks as detailed above). The first column indicates whether the impacts  
 15 are expected to be expected or indirect. All plants listed are also subject to cumulative impacts  
 16 (as per NEPA) as a result of the repeat disturbances to this region.  
 17 Notably the table includes 23 plants considered of conservation concern in California, 10 of  
 18 which are expected to suffer direct impacts under NEPA, and 13 are expected to suffer indirect  
 19 impacts.

Status	Family	Genus	Species	InfraName	CommonName	CNPS
Indirect	Euphorbiaceae	<i>Euphorbia</i>	<i>platysperma</i>		Flat-seeded Spurge	1B.2
Indirect	Fabaceae	<i>Acmispon</i>	<i>haydonii</i>		Haydon's Lotus	1B.3
Direct	Fabaceae	<i>Lupinus</i>	<i>excubitus</i>	<i>medius</i>	Mountain Springs Bush Lupine	1B.3
Indirect	Fabaceae	<i>Astragalus</i>	<i>insularis</i>	<i>harwoodii</i>	Harwood's Rattleweed	2B.2
Indirect	Fabaceae	<i>Astragalus</i>	<i>sabulonum</i>		Ground Locoweed	2B.2
Indirect	Apocynaceae	<i>Matelea</i>	<i>parvifolia</i>		Spearleaf, Talayote	2B.3
Indirect	Asteraceae	<i>Malperia</i>	<i>tenuis</i>		Brown Turbans	2B.3

1	Direct	Boraginaceae	<i>Pholistoma</i>	<i>auritum</i>	<i>arizonicum</i>	Arizona Fiesta Flower	2B.3
2	Direct	Fabaceae	<i>Calliandra</i>	<i>erriophylla</i>		Pink Fairyduster	2B.3
3	Direct	Loasaceae	<i>Eucnide</i>	<i>rupestris</i>		Rock-Nettle	2B.3
4	Direct	Loasaceae	<i>Mentzelia</i>	<i>hirsutissima</i>		Hairy Stick-Leaf	2B.3
5	Direct	Polemoniaceae	<i>Ipomopsis</i>	<i>tenuifolia</i>		Slender-Leaf Ipomopsis	2B.3
6	Indirect	Burseraceae	<i>Bursera</i>	<i>microphylla</i>		Small-Leaf Elephant Tree	2B.3
7	Direct	Juncaceae	<i>Juncus</i>	<i>acutus</i>	<i>leopoldii</i>	Southwestern Spiny Rush	4.2
8	Indirect	Apodanthaceae	<i>Pilostyles</i>	<i>thurberi</i>		Thurber's Pilostyles	4.3
9	Indirect	Boraginaceae	Johnstonella	<i>costata</i>		Ribbed Johnstonella	4.3
10	Indirect	Brassicaceae	<i>Lyrocarpa</i>	<i>coulteri</i>		Coulter's Lyrepod	4.3
11	Direct	Cactaceae	<i>Cylindropuntia</i>	<i>wolfii</i>		Wolf's Cholla	4.3
12	Indirect	Juncaceae	<i>Juncus</i>	<i>cooperi</i>		Cooper's Rush	4.3
13	Indirect	Martyniaceae	<i>Proboscidea</i>	<i>althaeifolia</i>		Desert Unicorn Plant	4.3
14	Direct	Nyctaginaceae	<i>Mirabilis</i>	<i>tenuiloba</i>		Long-Lobe Four O'Clock	4.3
15	Direct	Phrymaceae	<i>Diplacus</i>	<i>aridus</i>		Low bush monkeyflower	4.3
16	Direct	Ranunculaceae	<i>Delphinium</i>	<i>parishii</i>	<i>subglobosum</i>	Oceanblue Larkspur	4.3

25. In conclusion, the El Centro Project 1 area includes at least 23 plants of conservation concern in the state of California, including at least 3 plants on list 1B (plants that are globally rare, threatened or endangered) and 10 plants on list 2B (plants that are rare, threatened or endangered in California), for a total of 13 species eligible for listing under the California Endangered Species Act, and 10 more plants on list 4 (plants of limited distribution). The Project will undoubtedly have irreparable and irreversible impacts to numerous plants in the near pristine desert of the El Centro Project area (See Exhibit B – photo map of the project area, with a selection of photos taken along the Project area). El Centro Project 1 will have significant impacts on the Federal Wilderness Area on the eastern edge of the Jacumba Wilderness. The project will also impact numerous animals, including native mammals that were documented during the 2019 bioblitz, and multiple species of conservation concern.

I declare under penalty of perjury under the laws of the United States that the foregoing is

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true and correct.

Executed on May 28, 2019, at San Diego, California.



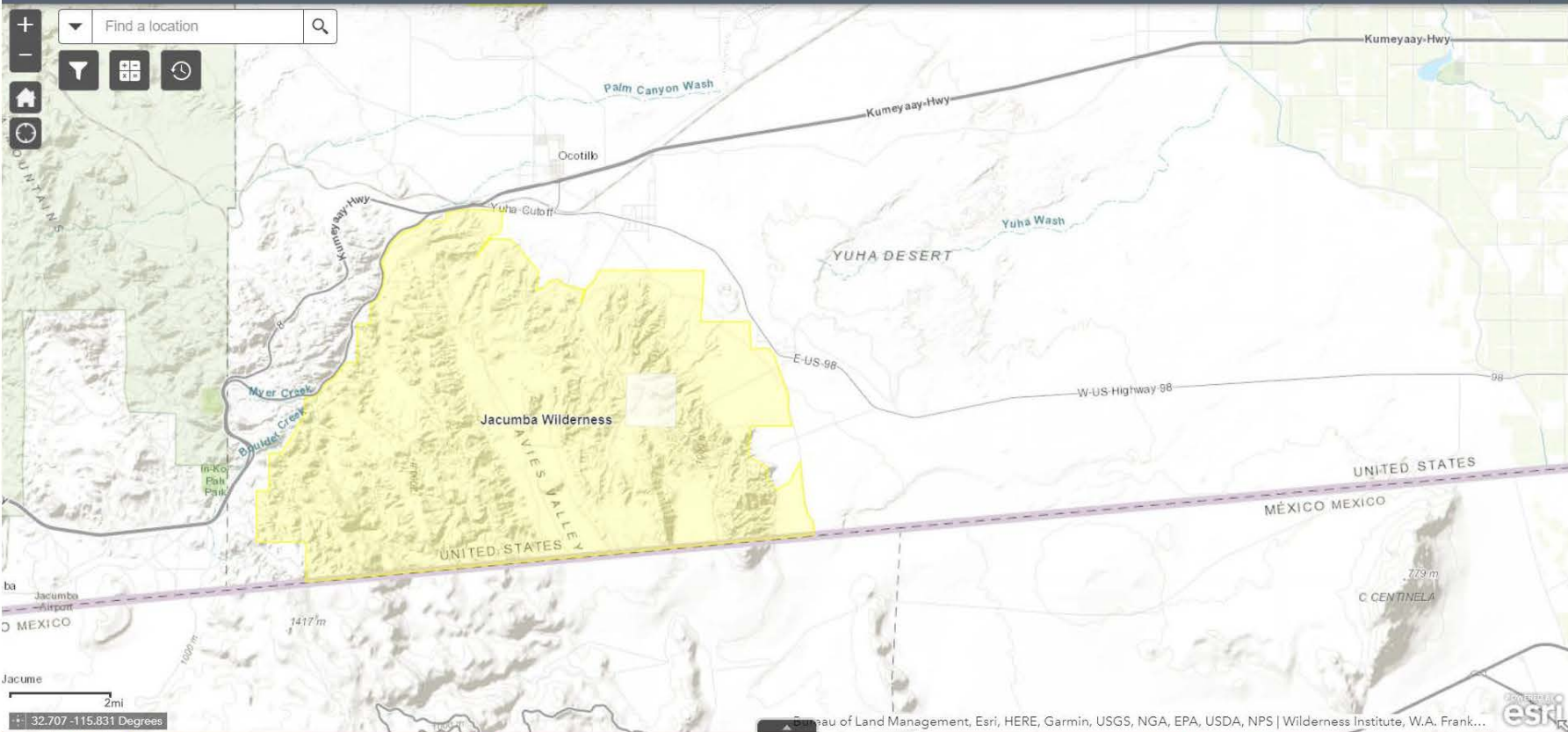
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Sula Elizabeth Vanderplank

# **EXHIBIT A**

# Wilderness Areas of the United States

Provided by Wilderness Connect



# **EXHIBIT B**



