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15 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
16 **FOR THE COUNTY OF LOS ANGELES – CENTRAL DISTRICT**

17 Coordination Proceeding

Judicial Council Coordination

18 Special Title (Rule 1550 (b)),

Proceeding No. 4408

19 **ANTELOPE VALLEY GROUNDWATER**  
20 **CASES**

[Assigned to the Honorable Jack Komar, Judge

Santa Clara County Superior Court, Dept. 17]

Santa Clara Court Case No. 1-05-CV-049053

**UNITED STATES' REVISED RESPONSE**  
**TO COURT'S DISCOVERY ORDER FOR**  
**PHASE 4 TRIAL**

21  
22  
23 Cross-Defendant United States of America respectfully submits this revised response to  
24 the December 12, 2012 *Discovery Order for Phase 4 Trial*.

25  
26 **I. FOR ALL PARTIES CLAIMING AN OVERLYING GROUNDWATER RIGHT,**  
27 **INCLUDING PUBLIC WATER AND OTHER PRODUCERS WHO ALSO CLAIM A**  
28 **PRESCRIPTIVE RIGHT UNDER CATEGORY II BELOW**

1 1. For each parcel of real property the responding party owns or occupies or otherwise  
2 controls in the Antelope Valley Adjudication Area, please state with particularity the  
3 following information:

4 (A) The Kern County Treasurer Tax Collector's "Assessor Tax Number" or the  
5 Los Angeles County Office of the Assessor "Assessor's Identification  
6 Number" of the parcel. If the identifying parcel number has changed since  
7 1999, please state both the current and previous number and the date the new  
8 identifying parcel number was assigned.

9 RESPONSE:

10 **1. Edwards Air Force Base:**

11 Edwards AFB is approximately 307,000 acres. See Attachment 1 for a legal  
12 description. See Attachment 2 for a list of APNs. The United States has not  
13 determined whether the APNs have changed.

14 **2. Air Force Plant 42:**

15 APNs for land owned by the United States at AFP 42 include:

16 APN: 3022-028-904  
17 APN: 3022-029-904  
18 APN: 3170-029-903  
19 APN: 3170-029-902  
20 APN: 3022-034-901  
21 APN: 3022-035-900  
22 APN: 3170-030-903  
23 APN: 3170-030-905  
24 APN: 3170-030-904  
25 APN: 3022-033-900  
26 APN: 3022-034-900  
27 APN: 3022-029-903  
28 APN: 3006-002-900  
APN: 3006-001-900  
APN: 3006-001-901  
APN: 3006-001-902  
APN: 3005-001-903  
APN: 3005-021-900  
APN: 3170-020-903  
APN: 3170-020-904  
APN: 3126-025-900

The United States has not determined whether the APNs have changed.

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(B) All record title owners of the parcel from 2000 to the present.

RESPONSE:

United States of America

(C) Whether a groundwater well existed on the parcel in any or all of calendar years 2000, 2001, 2002, 2003, 2004, 2011 or 2012.

RESPONSE:

The response is divided between Edwards AFB and AFP 42 below.

**1. Edwards AFB**

Attachment 3 lists the APNs for production and remedial extraction wells existing at Edwards AFB. The production amounts are provided for each APN during the time period of inquiry. In addition, 210 homestead wells were closed during 2000-2003. The homestead wells did not produce water during the time period of inquiry. Further information on the homestead wells is contained in archived files.

**2. AFP 42**

Attachment 4 lists the APNs for production wells existing at AFP 42. The production amounts are provided for each APN for 2000-2004, 2011-2012.

The fire protection wells are not currently metered. An engineering estimate was developed on the system size and capacity.

Remedial extraction wells are not included in Attachment 4. Groundwater extracted for remedial purposes is re-injected after treatment.

(D) Whether a groundwater well was operated on the parcel in any or all of calendar years 2000, 2001, 2002, 2003, 2004, 2011 or 2012.

RESPONSE:

The response is divided between Edwards AFB and AFP 42 below.

**1. Edwards AFB**

1 Attachment 3 lists the APNs for production and remedial extraction wells existing  
2 at Edwards AFB. The production amounts are provided for each APN during the  
3 time period of inquiry.

4 **2. AFP 42**

5 Attachment 4 lists the APNs for production wells existing at AFP 42. The  
6 production amounts are provided for each APN for 2000-2004, 2011-2012.

7 The fire protection wells are not currently metered. An engineering estimate was  
8 developed on the system size and capacity.

9 Remedial extraction wells are not included in Attachment 4. Groundwater  
10 extracted for remedial purposes is re-injected after treatment.

11 (E) The amount of groundwater produced from the parcel for calendar years 2000,  
12 2001, 2002, 2003, 2004,2011, and/or 2012.

13 **RESPONSE:**

14 **1. Edwards AFB**

15 Attachment 3 lists the APNs for production and remedial extraction wells existing  
16 at Edwards AFB. The production amounts are provided for each APN during the  
17 time period of inquiry.

18 In lieu of groundwater production, Edwards AFB purchased water from the  
19 Antelope Valley East Kern Water Agency. The amounts are shown on  
20 Attachment 5.

21 In lieu of groundwater production, Edwards AFB used treated wastewater effluent  
22 from its wastewater treatment plant for irrigation of landscaping. Amounts not  
23 needed for irrigation were sent to evaporation ponds. The amounts are shown on  
24 Attachment 5.

25 **2. AFP 42**

26 Attachment 4 lists the APNs for production wells existing at AFP 42. The  
27 production amounts are provided for each APN for 2000-2004, 2011-2012.

28 The fire protection wells are not currently metered. An engineering estimate was  
developed on the system size and capacity.

Remedial extraction wells are not included in Attachment 4. Groundwater  
extracted for remedial purposes is re-injected after treatment.

1 In lieu of groundwater production, AFP 42 purchased water from the Palmdale  
2 Water District. The amounts are shown on Attachment 6.

3 (F) The use(s) to which the groundwater produced from the parcel was put on  
4 said parcel in any or all of calendar years 2000, 2001, 2002, 2003, 2004, 2011, or  
5 2012.

6 RESPONSE:

7 Military purposes in connection with Edwards Air Force Base and Plant 42. The  
8 groundwater produced at Edwards AFB and AFP 42 was used for domestic,  
9 industrial, construction and fire protection purposes to support the military  
10 mission. Examples include supplying water to industrial production facilities,  
11 cooling rocket motors, aircraft maintenance, office buildings, commercial and  
12 shopping areas for base personnel, residences, drinking water, irrigation of  
13 landscaping, schools, medical clinic, cooling towers and recreation.

14 (G) If groundwater produced from another parcel was used on the parcel during  
15 any or all calendar years 2000, 2001, 2002, 2003, 2004, 2011, or 2012, please  
16 state the Kern County Treasurer Tax Collector's "Assessor Tax Number" or the  
17 Los Angeles County Office of the Assessor "Assessor's Identification Number" of  
18 the parcel(s) from which the subject groundwater was produced and identify the  
19 owner thereof.

20 RESPONSE:

21 All groundwater produced on Edwards AFB was used on Edwards AFB. All  
22 groundwater produced on AFP 42 was used on AFP 42.

23 (H) The use(s) to which the parcel was put during each of calendar years 2011,  
24 and 2012.

25 RESPONSE:

26 **1. Edwards AFB**

27 Military purposes in connection with Edwards Air Force Base. Edwards AFB  
28 includes the home of the Air Force Test Center, the 412<sup>th</sup> Test Wing, the Air  
Force Test Pilot School, and NASA's Dryden Flight Research Center. The Air  
Force Test Center (AFTC) provides DoD-wide support for weapon-system  
development and operational testing and evaluation for a broad range of aircraft  
and weapons systems. The Test Pilot School is where Air Force pilots, navigators  
and engineers learn how to conduct flight tests and generate the data needed to  
carry out test missions. The Dryden Flight Research Center is NASA's primary  
center for atmospheric flight research and operations. Edwards AFB hosts two

1 squadrons of Marine Corps Reserve helicopters and the Air Force Research  
2 Laboratory (AFRL). The AFRL is the sole Air Force entity charged with  
3 developing spacecraft and rocket propulsion technologies. Edwards AFB  
4 includes a residential area.

## 5 **2. AFP 42**

6 Military purposes in connection with Plant 42. AFP 42 is an operating location of  
7 the Air Force Life Cycle Management Center (AFLCMC). AFLCMC is  
8 responsible for designing, developing and delivering the aerospace weapons  
9 systems and capabilities that support the U.S. warfighter and our allies. AFP 42 is  
10 a major Air Force aircraft development and construction facility. AFP 42  
11 provides and maintains facilities for the maintenance and final assembly of jet-  
12 powered, high performance aircraft, production engineering and flight test  
13 programs, and Air Force acceptance flight test of high performance jet aircraft.  
14 Three main aerospace contractors operate at AFP 42: Boeing, Lockheed Martin  
15 and Northrop Grumman. There are eight separate production sites specially  
16 suited for advanced technology and classified projects. There is no housing at  
17 AFP 42.

18 (I) The crop type, if any, grown on the parcel during each of the calendar years  
19 2000, 2001, 2002, 2003, 2004, 2011, and 2012.

20 RESPONSE:

21 No crops were grown on Edwards AFB or AFP 42 during this time.

22 (J) If the responding party contends the parcel has groundwater rights based upon  
23 something other than groundwater production or use, please state the amount of  
24 that claim for each of the calendar years 2000, 2001, 2002, 2003, 2004, 2011, and  
25 2012, and its legal and factual basis therefor.

26 RESPONSE:

27 The United States asserts a Federal Reserved Water Right for Edwards Air Force  
28 Base and Plant 42 reserving water which is not presently in groundwater  
production or use. See Section IV of this response below. In addition, to the  
extent that the ground water rights for Edwards Air Force Base and Plant 42 are  
analyzed under State law, the installations claim a right to water used from a  
alternate nontributary source pursuant to Cal. Wat. Code §§ 1005, et seq.  
Attachment 5 and 6.

1 (K) State the amount of water rights claimed as the reasonable and beneficial use  
2 for each such parcel.

3 RESPONSE:

4 To the extent that the ground water rights for Edwards Air Force Base and Plant  
5 42 are analyzed under State law, based on the average water used in the years  
6 2000-2004 the United States asserts the right to beneficially use 7,141 acre-feet  
7 per year. Based on maximum annual use, the United States asserts the right to  
8 beneficially use 7500 acre-feet for EAFB (year of maximum use 1965) and 473  
9 acre-feet for Plant 42 (year of maximum use in2001).

10 (K)[sic] At the responding party's election any other facts that the responding  
11 party contends will assist the Court in determining the amount of groundwater  
12 produced from each parcel of land owned or controlled by the responding party in  
13 any or all calendar years 2000, 2001,2002,2003,2004,2011 and 2012.

14 RESPONSE: For years 2000-04, and 2011-12, see I.3(A).

15 2. For each parcel of real property the responding party owned in the Antelope Valley  
16 Adjudication Area during calendar years 2000, 2001, 2002, 2003, 2004, 2011 or 2012,  
17 please state with particularity the following information:

18 RESPONSE: N/A

19 3. For all parcels of land identified in response to Request No.1 above, please state with  
20 particularity the following information:

21 (A) All materials constituting the responding party's *prima facie* showing of the  
22 amount of groundwater produced from each parcel of land owned or  
23 controlled by the responding party in calendar years 2000, 2001, 2002, 2003,  
24 2004, 2011 and 2012.

25 RESPONSE:

26 **1. Edwards AFB**

27 For Edwards AFB, the United States is producing the monthly AF Form 1461,  
28 showing amount of water pumped and purchased during the period. This form is  
Edwards AFB's official report of volume of water purchased from AVEK and  
pumped from our production wells. These reports do not include AFRL for 2000.

1 In addition, the United States is producing the meter logs from which the AF  
2 Form 1461 is prepared. See Bates-labeled documents USAF000854 –  
3 USAF001648 and USAF005369 – USAF005799 and USAF005800 -  
4 USAF007238 in the [U.S. Document Production](#).

## 4 **2. AFP 42**

5 For AFP 42, the United States is producing the meter logs and invoices for  
6 municipal water. See Bates-labeled documents USAF007239 - USAF012618 in  
7 the U.S. Document Production.

8 (B) All materials constituting the responding party's *prima facie* showing of the  
9 use(s) to which the responding party put each parcel of land controlled by the  
10 responding party in calendar years 2011 and 2012.

11 RESPONSE:

12 The *prima facie* showing of the uses to which Edwards AFB and AFP 42 have  
13 been put will be made through testimony of knowledgeable witnesses. See Bates-  
14 numbered documents 000854-001648, 005369-005799, USAF005800 -  
15 USAF007238, USAF007239 - USAF012618 in the U.S. Document Production.  
16 In addition, the Air Force may show a History Channel documentary about  
17 Edwards AFB, available for purchase at:

18 <http://shop.history.com/edwards-air-force-base-dvd/detail.php?p=69122>

19 (C) At the responding party's election, any additional materials that will assist the  
20 Court in determining the amount of groundwater produced from each parcel of  
21 land by the responding party in any or all calendar years 2000, 2001, 2002, 2003,  
22 2004, 2011 and 2012.

23 RESPONSE: N/A

## 24 **II. FOR ALL PARTIES CLAIMING A NON-OVERLYING RIGHT, INCLUDING 25 APPROPRIATIVE, PRESCRIPTIVE OR OTHERWISE**

26 RESPONSE: N/A

## 27 **III. FOR ALL PARTIES CLAIMING RETURN FLOW CREDITS**

28 RESPONSE: N/A



1  
2 **IV. FOR THE FEDERAL PARTIES**

3 1. The United States shall produce a statement on its claims to water based on federal  
4 law consistent with security concerns.

5 A. The amount of its claimed Federal Reserved Right in acre feet of water per year.

6 RESPONSE:

7  
8 The United States claims 11,683 acre feet of water annually (AFA) as its total federal  
9 reserved right. This figure is the sum of the current and potential amount needed by  
10 Edwards AFB and AFP 42 to fulfill their military missions. An explanation of the  
11 source of this figure appears below for each installation.

12 **1. Edwards AFB**

13 The federal reserved right for present and future uses at Edwards Air Force Base is  
14 10,717 acre feet per year. The average annual water use at EAFB from 2000-2004  
15 was 5,823 AFA, not including recycled water. This reflects approximate long term  
16 average water needs for EAFB with the current missions. Additional missions will  
17 increase water use. Assuming the Air Force assigns a full new fighter wing to EAFB  
18 water use will increase by approximately 4,894 AFA. This projection of future use  
19 associated with the addition of a new wing is based on the engineering and water  
20 management assumptions set forth in Attachment 7.

21 **2. AFP 42**

22 The federal reserved right for present and future uses at AFP 42 is 966 acre feet per  
23 year. Attachment 8 shows the details of the estimate for future needs. The estimate is  
24 divided among the eight production sites. Assumptions are provided explaining the  
25 anticipated increase in use for each site.

26 B. A statement containing the legal theory upon which its claims to federal reserved  
27 water rights are based, including citations of pertinent legal or case authorities and  
28 Congressional acts.

RESPONSE:

29 A water right is claimed under the implied federal reserved water rights  
30 doctrine. The doctrine holds that when water is necessary to fulfill the purpose of a  
31 federal reservation, that water is impliedly reserved to the United States. *Winters v.*  
32 *United States*, 207 U.S. 564, 576- 578 (1908) (holding that the establishment of an  
33 Indian reservation implies a right to sufficient unappropriated water to accomplish its  
34 purposes); *Arizona v. California*, 373 U.S. 546, 600 (1963) (applying the *Winters*

1 rationale to non-Indian federal reservations); *Cappaert v. United States*, 426 U.S. 128,  
2 147 (1976) (applying the federal reserved water rights doctrine to a reservation  
3 created by Presidential proclamation); *United States v. New Mexico*, 438 U.S. 696,  
4 702 (1978) (water is reserved in the minimum amount necessary to ensure the  
5 purpose of the reservation is not frustrated); *In re the General Adjudication of all  
Rights to Use Water in the Gila River Sys. and Source*, 989 P.2d 739, 748 (1999)  
6 (holding that “reserved water rights doctrine applies not only to surface water but to  
7 groundwater.”)

8 Federal reserved water rights are by nature a preserve intended to “continue[ ]  
9 through years.” See *Winters*, 207 U.S. at 577, 28 S.Ct. 207. In *Arizona v. California*,  
10 the Supreme Court affirmed that an implied reservation includes sufficient waters “to  
11 satisfy the future as well as the present needs of the Indian Reservations.” 373 U.S. at  
12 600. The Court added that the reservation of waters applies to the “future  
13 requirements” of other types of federal reservation as well. *Id.* at 601.

14 The reserved water rights doctrine draws no distinction between lands  
15 withdrawn from the federal public domain and lands acquired for a particular  
16 purpose. “The reasoning used by the Supreme Court to support federal reserved  
17 rights does not depend solely on a formal reservation of land from the public  
18 domain, but rather on Congress' exercise of a constitutional authority such as the  
19 Property or Commerce Clauses, coupled with the Supremacy Clause. Therefore,  
20 that reasoning is applicable even if there has been no such reservation [from the  
21 public domain].” Memorandum for the Assistant Attorney General, Land and  
22 Natural Resources Division, United States Department of Justice, Theodore B.  
23 Olson, Assistant Attorney General, Office of Legal Counsel, United States  
24 Department of Justice, 6 U.S. Op. O.L.C. 328, 333, 381-82 (June 16, 1982). See  
25 also *United States v. Anderson*, 735 F. 2d 1358 (9th Cir. 1984).

26 Further, the United States Constitution, art. I, § 8, Clause 17, states that the  
27 Congress shall have power:

28 To exercise exclusive Legislation in all Cases whatsoever .  
29 . . over all Places purchased by the Consent of the  
30 Legislature of the State in which the Same shall be, for the  
31 Erection of Forts, Magazines, Arsenals, dock-Yards, and  
32 other needful Buildings; . . . .

33 This clause has been interpreted by the Supreme Court as conveying  
34 “complete sovereignty” upon the United States. *S. R. A., Inc. v. Minnesota*, 327 U.S.  
35 558, 562-563 (1946). See also *West River Elec. Ass'n, Inc. v. Black Hills Power and  
36 Light Co.*, 918 F.2d 713, 714-15 (8th Cir. 1990)(“[A]s a federal enclave, Congress has  
37 exclusive jurisdiction over Ellsworth Air Force Base and that in order to defer this  
38 exclusive jurisdiction to the State, Congress must clearly and unambiguously express  
as its purpose the deferral of such jurisdiction.”). The United States accepted

1 California's ceding of complete sovereignty over the majority of Edwards Air Force  
2 Base. By acquiring complete sovereignty, the Base is conferred exclusive rights to its  
3 property and resources, including water.

4 In a case very similar to this one, federal reserved water rights for U.S. Army  
5 Fort Huachuca were recognized by the presiding judge in the on-going general  
6 adjudication of all rights to use water in the Gila River watershed in Arizona (the  
7 United States was joined pursuant to the McCarran Amendment). In declaring that  
8 reserved rights exist on the military installation, Judge Ballinger stated "the Court is  
9 convinced that the Fort Huachuca reservation for "military uses" is not static and  
10 includes water rights required to satisfy contemporary, direct, indirect and quasi-  
11 municipal needs that arise in conducting military and military-related functions  
12 important to local and national security." See Attachment 9. Water for Edwards Air  
13 Force Base is similarly reserved to satisfy its important national security functions  
14 now and in the future.

15 Documents supporting the historical military uses at Edwards Air Force Base  
16 are provided in the U.S. Document Production. In addition to the land acquisition  
17 documents listed in Response D. below, the documents bates numbered 012619-  
18 022284 and 022320-22889 are responsive to the claim of a federal reserved water  
19 right.

20 C. The factual basis for its claim including a reference to pertinent reservation  
21 documents.

22 RESPONSE:

23 The factual basis establishing the need for water to meet the purposes of  
24 EAFB and Plant 42 are discussed in section IV.A. and IV.E. below. The properties  
25 comprising these installations are a combination of reserved and acquired lands.  
26 Pertinent reservation documents are attached as Bates-labeled documents 001653-  
27 1668, 004251-004851, 005093-012,618.

28 D. For lands within Edwards Air Force Base and Air Force Plant 42 that were  
purchased or otherwise acquired from non-federal sources, the United States will  
provide detailed information on the acquisitions.

RESPONSE:

The documents detailing the acquisitions of land for Edwards Air Force Base are  
provided herewith in the folder IV.D and I Response. The documents are bates  
numbered 001649-001652, 1669-004250, 004852-005092.

1 E. A statement on the quantity of water reserved necessary to satisfy the purpose(s) of  
2 the reservation.

3 RESPONSE:

4 See Response to Request IV.C. above.

5 As described in response to IV.1.A above, the United States claims 11,683 acre feet  
6 of water annually (AFA) as its total federal reserved right. This figure is the sum of  
7 the current and potential amount needed by Edwards AFB and AFP 42 to fulfill their  
8 military missions. Additional rationale for this figure is described below. The  
9 response is divided between Edwards AFB and AFP 42.

### 10 **1. Edwards AFB**

11 1. The Air Force has a number of broad missions that are critically important to the  
12 national security of the United States. The Air Force is continually affected by  
13 technological change, and depends on technology and innovation to develop its  
14 operational capabilities. Ensuring that today's Air Force core competencies will meet  
15 the challenge of tomorrow is accomplished through the acquisition, test and  
16 evaluation functions housed in Air Force Materiel Command. Essential to this  
17 continuing mission is the availability of installations and ranges that the Air Force can  
18 rely on to provide support both now and in the future.

19 2. Air Force Materiel Command (AFMC) conducts research, acquisition,  
20 development, test, evaluation, and sustainment necessary to keep Air Force weapon  
21 systems ready for war. Edwards AFB is operated and maintained by the 412th Test  
22 Wing as part of the Air Force Materiel Command. It is home to the Air Force Test  
23 Center, the 412th Test Wing, the Air Force Test Pilot School, and NASA's Dryden  
24 Flight Research Center. Edwards AFB also hosts two squadrons of Marine Corps  
25 Reserve helicopters and the Air Force Research Laboratory (AFRL). Occupying 65  
26 square miles at Edwards AFB, the AFRL is the sole Air Force entity charged with  
27 developing spacecraft and rocket propulsion technologies.

28 3. The Air Force Test Center (AFTC) provides DoD-wide support for weapon-  
system development and operational testing and evaluation for a broad range of  
aircraft and weapons systems. The Air Force Test Center's stature as the nation's  
premier flight test facility is the result of a unique blend of natural resources that  
cannot be matched anywhere else on earth. They are a combination of exceptional  
year-round flying weather, relative lack of encroachment by development, access to  
the R-2508 flight complex, varied topography that includes both the lowest and the  
highest points in the contiguous United States, and the unique dry lake bed  
formations.

1 4. Edwards AFB was first established as a bombing and gunnery range in 1933.  
2 During World War II it was used to provide final combat training for aircrews prior to  
3 deployment overseas. In the spring of 1942, because of its isolation, expansive  
4 landing field, and year-round flying weather, the installation was selected for top  
5 secret testing of the first jet aircraft, the Bell XP-59A Airacomet.

6 5. Covering more than 307,000 acres, Edwards AFB is the second-largest  
7 installation in the United States Air Force inventory. It is so large that it is not  
8 required to publish an Air Installation Compatible Use Zone (AICUZ) map in order to  
9 notify local landowners of the potential for accident and noise impacts because  
10 Edwards AFB encompasses all lands within the noise contours and the Clear Zone,  
11 APZs I and II. This is significant because it reflects the fact that operations at  
12 Edwards are unlikely to affect neighboring landowners since they are located at such  
13 a great distance from the flightline.

14 6. In addition to the unique lakebeds, Edwards AFB is host to mission critical  
15 military airspace operating areas, restricted areas, controlled firing areas, training  
16 routes and air traffic control assigned airspace. These resources and assets support  
17 high and low altitude supersonic flight test and radar, avionics, airframe, propulsion  
18 and weapons systems integration testing on fighter, bomber, refueler, cargo and  
19 Unmanned Aircraft Systems (UAS) aircraft.

20 7. Rogers Dry Lake Bed, which, at 47.3 square miles of extremely flat, concrete-like  
21 playa, is the largest geological formation of its kind in the world and an unmatched  
22 landing surface for both aircraft and space vehicles. Rogers Dry Lake has been used  
23 as a landing site for the space shuttle since 1981.

24 8. Rosamond Dry Lake, several miles southwest of Rogers, offers 21 square miles of  
25 smooth flat surface which is also used for routine flight test and research operations  
26 and for emergency landings. The flatness of the lakebeds was revealed following a  
27 measurement of the Rosamond lakebed surface which has a curvature of less than 18  
28 inches over a distance of 30,000 feet.

9. The formation of sinkholes has affected the operational mission of the base by  
decreasing the utility of the lakebed for emergency landings. These sinkholes are  
unpredictable and create operational risk for pilots who are accustomed to using the  
dry lakebed as an emergency runway.

10. The R-2508 complex provides the largest single area of Special Use Airspace  
(SUA) over land in the United States, covering a land area of 20,000 square miles.  
The R-2508 Complex is strategically important to the nation. It is an important  
national military asset with capabilities for weapons research and development, and  
an arena for realistic military training. The proximity of the Point Mugu Sea Range  
(located over the Pacific Ocean) combined with the inland mountains and desert open  
spaces of the R-2508 Complex and Edwards' exceptional flying weather of 361 visual

1 flying days per year provides the premier, instrumented setting for conducting  
2 warfare testing and training exercises.

3 11. A 5 year plus outlook for Edwards AFB includes testing of manned, network  
4 centric warfare, hypersonic, directed energy and unmanned systems utilizing the  
5 various resources and assets noted above. All of these new technologies are essential  
6 elements of the new “global theater” where our forces need to be able to engage on  
7 multiple fronts in a joint way. These unique airspace assets that support the flight test  
8 mission to test and field new systems to ensure national military readiness will  
9 continue to be a significant asset to the Air Force in the years ahead.

10 12. “Encroachment” is the term that the Department of Defense uses to describe the  
11 process of residential and commercial development growing out to meet formerly  
12 remote military installations. Population growth and increased density limits the use  
13 of training facilities and can trigger mission change or even closure of the affected  
14 installation. Encroachment creates challenges in carrying out realistic training at  
15 installations and ranges, particularly at a time when the increased speed and range of  
16 weapons systems is increasing.

17 13. Technology procured to keep our forces in a dominant position must be exercised  
18 to gain competence and confidence in its use. Military installations must train as they  
19 intend to fight, and this requires airspace and ranges that can accommodate these new  
20 weapons systems. Preserving military readiness in the face of encroachment and its  
21 accompanying pressure to modify training patterns is a significant challenge for the  
22 Air Force and the Department of Defense generally.

23 14. What is noteworthy about Edwards AFB is that it is free from constraints on  
24 future growth that uniformly limit other bases. Edwards AFB’s unique assets are  
25 strong indicators that this installation, currently a critical element of national security,  
26 will not decrease in use in the future. Speaking generally, Edwards has natural  
27 advantages of climate, varied geography, remoteness and airspace. This makes  
28 Edwards likely to obtain additional missions for two reasons. Encroachment of  
development will likely increase the challenges other bases and ranges face in hosting  
even existing mission activities. Even absent encroachment, next-generation  
weapons systems will tend to strain the limited resources of installations planned and  
designed to accommodate legacy systems. Indeed, the Air Force continually evaluates  
Edwards as a site for new or relocating missions of various sizes. Some general  
scenarios that could drive growth are:

a. Increased Testing. If the sheer volume of Air Force flight testing  
increases in the future, the share at Edwards would naturally tend to increase.  
Additionally, numerous locations in the Air Force, among the military services,  
and among defense contractors conduct an array of flight testing. Due to the  
unequaled resources at Edwards, a realignment of Department of Defense flight  
testing either internally or by contractors could lead to expansion of Edwards.

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2 b. Addition of an Operational (non-test) Air Force Flying Unit. Edwards  
3 presently hosts a Marine helicopter unit. The advantages that Edwards enjoys in  
4 terms of locations and access to training ranges could make it an attractive  
5 location for an operational Air Force flying unit. Notably, several bases in Air  
6 Force Material Command already host full Air Force flying wings in addition to  
7 their primary missions.

8 c. Addition of a Non-Air Force Military Unit. Joint basing of units from  
9 multiple military services has accelerated in recent years. Thus, there's a greater  
10 possibility than in the past that an Army, Navy or Marine unit may be assigned to  
11 Edwards in the future. Navy and Army training areas are part of the R-2508  
12 complex to which Edwards provides ready access.

13 15. The availability of open spaces to act as a buffer against residential  
14 encroachment, in addition to the unique dry lakebeds and year-round flying weather  
15 make Edwards an attractive option for new activities or realigning missions currently  
16 housed at other installations. Although this process is Congressionally mandated and  
17 cannot be forecasted with any degree of certainty, in the long view it is evident that  
18 population pressures will limit or restrict training at other Air Force installations.  
19 Because national defense missions cannot simply be abandoned, each must be located  
20 somewhere, and Edwards AFB possesses a multitude of natural resources that  
21 recommend it highly. Although what mission will come to Edwards cannot be  
22 predicted with certainty, it is a certainty that Edwards will receive new missions.

23 16. There is a present need for future availability of water to continue the historic and  
24 unchanged mission of Edwards AFB as a global leader in air and space testing and  
25 operation. Allowance of an element of future water rights as a component of  
26 Edwards' present water entitlement enables the continuance of the military mission  
27 not only as an acknowledgment of the continuing flight and test mission at Edwards  
28 AFB, but also by providing a margin of safety to ensure that the aquifer retains  
sufficient water to support the lakebed surfaces so vital to our national defense  
mission.

## 2. AFP 42

1. AFP 42 is an operating location of the Air Force Life Cycle Management Center (AFLCMC). AFLCMC is responsible for designing, developing and delivering the aerospace weapons systems and capabilities that support the U.S. warfighter and our allies. For more than nine decades, AFLCMC and its predecessors have provided the military aviation technologies that have allowed our nation's military to operate safely and effectively. AFLCMC reports to the Air Force Materiel Command (AFMC).

1 2. Established in 1953, AFP 42 is approximately 5,800 acres (9 square miles). AFP  
2 42 is strategically located near Edwards Air Force Base and aerospace contractors in  
3 the Los Angeles area. AFP 42 is a major Air Force aircraft development and  
4 construction facility. AFP 42 provides and maintains facilities for the maintenance  
5 and final assembly of jet-powered, high performance aircraft, production engineering  
6 and flight test programs, and Air Force acceptance flight test of high performance jet  
7 aircraft. All personnel live off the installation because there is no housing on the AFP  
8 42.

9 3. Three main aerospace contractors operate at AFP 42: Boeing, Lockheed Martin  
10 and Northrop Grumman. These contractors share a common runway complex and  
11 lease building space from the Air Force or own nearby buildings. There are eight  
12 separate production sites specially suited for advanced technology and classified  
13 projects. Until 2010, AFP 42 was run by contractors on behalf of the Air Force.  
14 Since 2010, AFP 42 has been run directly by Operating Location Air Force Plant 42.

15 4. The property now called AFP 42 was first activated as an emergency air landing  
16 strip in 1940 prior to the entry of the United States in World War II. It also provided  
17 B-25 training to military aviators during the war. Declared surplus by the federal  
18 government in 1946, it became a commercial airport for Los Angeles County. The  
19 outbreak of the Korean War in 1950 caused the Air Force to reactivate the property  
20 for use in final assembly and flight testing of military jet aircraft.

21 5. The Air Force needed a location away from major population centers, because of  
22 sonic booms, other noise, and security concerns, but close enough to the major  
23 centers of aircraft design and production, while having excellent flying weather the  
24 year around. The land which became AFP 42 fit these criteria. Consequently, the Air  
25 Force agreed to purchase the land from Los Angeles County in 1951.

26 6. Projects at AFP 42 have included design, engineering, pre-production, production,  
27 modification, flight testing, servicing and/or repair of fighters (such as F-22 Raptor,  
28 F-35 Lightning II), bombers (B-1 Lancer, B-2 Spirit, B-52 Stratofortress, F-117  
Nighthawk), manned reconnaissance aircraft (U-2, SR-71 Blackbird), unmanned  
surveillance aircraft (RQ-4 Global Hawk, MQ-4C Triton) and spacecraft (Space  
Shuttle Orbiters). Current operations at AFP 42 include engineering and flight test of  
the RQ-4 Global Hawk, depot maintenance and flight test of the B-2 bomber,  
inspection and flight test of the U-2S, and home-basing of NASA's 747SP  
Stratospheric Observatory for Infrared Astronomy (SOFIA).

7. Both 412th Test Wing (Edwards AFB, California) and 146th Airlift Wing  
(California Air National Guard, Point Mugu Naval Air Station) use AFP 42 airspace  
and runways to maintain pilot proficiency. From Edwards AFB, a wide variety of  
aircraft types that are undergoing flight testing and thus are using the facilities and  
airspace at Edwards AFB also use the airfield at AFP 42. These aircraft include the



1 C-130 Hercules, the F-15 Eagle, the F-16 Fighting Falcon, the F-22 Raptor, and the  
2 T-38 Talon.

3 8. The Federal Aviation Administration (FAA) operates its Los Angeles Air Route  
4 Traffic Control Center (ARTCC) at its site adjacent to AFP 42. This center controls  
5 and tracks aircraft for the western United States, and covers non-local aircraft  
6 communication needs flying over California, Arizona, Nevada, and Utah.

7 9. At various times since 1989, pursuant to an agreement between the Air Force and  
8 Los Angeles World Airports, commercial airlines have used a civilian terminal and  
9 the runways located on AFP 42. No commercial flights have occurred since 2008.

10 10. Looking to the future, decisions on continuation of existing military missions at a  
11 particular location and development of new military missions are driven by many  
12 factors that are inherently difficult to predict. It would rarely be appropriate for an  
13 Air Force official to discuss whether a particular mission may continue at AFP 42 or  
14 whether any particular mission may be added to AFP 42 unless such decisions were  
15 already made.

16 11. AFP 42 has a unique combination of assets that would be difficult and perhaps  
17 impossible to find anywhere else. AFP 42 has natural advantages of climate,  
18 facilities, airspace, proximity to major aerospace contractors, access to a highly  
19 educated, trained and capable workforce, a relative lack of encroachment despite  
20 regional growth, and supportive communities. These assets are strong indicators that  
21 this installation, currently a critical element of national security, will not decrease in  
22 use in the future. Additional potential missions and activities for AFP 42 are  
23 described in Attachment 8.

24 12. It is likely that AFP 42 will remain a key installation in the design, development  
25 and delivery of aerospace weapons systems for the United States and our allies.  
26 Access to adequate water to support the mission of AFP 42 is essential to continuance  
27 of the mission.

28 F. Whether the claimed reservation of groundwater by the Federal Government is  
expressed or implied.

RESPONSE: Implied. *See* Response to Request IV.B. above.

G. The identity of all lands set aside for the reservation by the Federal Government,  
including the Kern County Treasurer Tax Collector's "Assessor Tax Number" or the  
Los Angeles County Office of the Assessor "Assessor's Identification Number" of the  
parcel(s).

RESPONSE: See Response to Request IV.C. above.

1 H. Whether the Federal Government claims any portion of Edwards Air Force Base is  
2 an original reservation of land that never entered the public domain. If so, describe  
3 such portion(s) and why it (they) never entered the public domain.

4 RESPONSE: Objection. The United States cannot determine the meaning or  
5 intent of this request and therefore cannot respond to same. The term “original  
6 reservation” is not defined, and is therefore vague and ambiguous. Notwithstanding  
7 and without waiving this objection, the land that now comprises Edwards Air Force  
8 Base was withdrawn or reserved from the federal public domain or was acquired from  
9 private parties and entities or the state. The documents evidencing the deeds,  
10 condemnations and withdrawals are submitted in response to Request IV.C.

11 I. Please provide specific acquisitions of property and the dates of such acquisitions.

12 RESPONSE: See Response to Request IV.C.

13 J. The amount of surplus groundwater, if any, the Federal Government contends  
14 remained in the ANTELOPE VALLEY ADJUDICATION AREA at the time of the  
15 reservations of land by the Federal Government for Edwards Air Force Base and the  
16 factual basis for such claim.

17 RESPONSE: Objection. The United States cannot determine the meaning or  
18 intent of this request and therefore cannot respond to same. The term “surplus  
19 groundwater” is not defined, and is therefore vague and ambiguous. The United  
20 States is therefore unable to respond to this request. To the best knowledge of the  
21 United States, the term “surplus groundwater” has no meaning or relevance in Federal  
22 Reserved Water Rights caselaw. Furthermore, regardless of the meaning of the term,  
23 in the context of the United States claim for a Federal Reserved Water Right, the  
24 request is not reasonably calculated to lead to the discovery of relevant information.

25 L. The amount of ground water used on the reserved lands in each of calendar years  
26 2000, 2001, 2002, 2003, 2004, 2011 and 2012.

27 RESPONSE:

28 Attachment 3 lists the APNs for production and remedial extraction wells existing at  
Edwards AFB. The production amounts are provided for each APN during the time  
period of inquiry. The water was used at Edwards AFB.

In lieu of groundwater production, Edwards AFB purchased water from the Antelope  
Valley East Kern Water Agency. The amounts are shown on Attachment 5.

In lieu of groundwater production, Edwards AFB used treated wastewater effluent  
from its wastewater treatment plant for irrigation of landscaping. Amounts not

1 needed for irrigation were sent to evaporation ponds. The amounts are shown on  
2 Attachment 5.

3 Edwards AFB does not keep track of amounts of water used on reserved and  
4 unreserved parcels in the ordinary course of business. Such a distinction would  
5 require significant time to develop.

6 M. The amount of groundwater used on Edwards Air Force Base that are not part of  
7 the reserved lands in each of calendar years 2000, 2001, 2002, 2003, 2004, 2011 and  
8 2012.

9 RESPONSE:

10 See Response to Request IV.L. above.

11 N. The amount of groundwater used to irrigate and operate Muroc Lake Golf Course  
12 in each of calendar years 2000, 2001, 2002, 2003, 2004,2011 and 2012.

13 RESPONSE:

14 Attachment 10 shows the estimated amount of groundwater used to irrigate and  
15 operate the Muroc Lake Golf Course. The golf course buildings are supplied from  
16 the domestic piped system. The golf course grounds are irrigated from a lake that  
17 receives water from two sources, which are the west base system (composed of two  
18 wells) and the recycled (reclaimed) irrigation system. Prior to 2007, the pump that  
19 fed the golf course from the west base system was not metered, so estimates were  
20 needed.

21 O. The amount of water used on Edwards Air Force Base by all persons and entities  
22 other than the Federal Government in each of calendar years 2000, 2001, 2002, 2003,  
23 2004, 2011 and 2012.

24 RESPONSE:

25 None. All water used on Edwards AFB supports the federal government's use of  
26 Edwards AFB for military purposes. Nonfederal entities operating at Edwards AFB  
27 include the Muroc School District, private contractors and commercial businesses at  
28 the Base Exchange. All support the personnel of Edwards AFB.

## **V. FOR ALL RESPONDING PARTIES**

1. For each of the items above, please identify the person(s) most qualified to testify on  
its behalf to the facts alleged and materials produced.

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RESPONSE:

For response to Paragraph I.1(A):

- Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH
- Persons with knowledge from real property offices serving Edwards AFB, CA and AFP 42, CA.

For response to Paragraph I.1(B):

- JRP Historical Consulting, LLC, Davis, CA
- Persons with knowledge from real property offices serving Edwards AFB, CA and AFP 42, CA.

For response to Paragraph I.1(C)-(E):

- Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA
- George Warner, Remedial Project Manager, AFP 42, Wright Patterson AFB, OH
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH
- Persons with knowledge from Northrop Grumman, Boeing and Lockheed Martin, AFP 42, CA

For response to Paragraph I.1(F):

- Brigadier General Michael Brewer, Commander, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA
- Lt Col Gene Cummins, Director, AFP 42, CA
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH

For response to Paragraph I.1(G):

- Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH
- Persons with knowledge from Northrop Grumman, Boeing and Lockheed Martin, AFP 42, CA

For response to Paragraph I.1(H):

- Brigadier General Michael Brewer, Commander, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA
- Lt Col Gene Cummins, Director, AFP 42, CA
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- 1           • Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH  
2           •

3 For response to Paragraph I.1(I):

- 4           • Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA  
5           • James Judkins, Base Civil Engineer, Edwards AFB, CA  
6           • Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH  
7           • Persons with knowledge from Northrop Grumman, Boeing and Lockheed Martin, AFP 42, CA

8 For response to Paragraph I.1(J)-(K):

- 9           • For the factual basis, see witnesses identified in response to Paragraph IV below.

10 For response to Paragraph I.3(A):

- 11           • Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA  
12           • James Judkins, Base Civil Engineer, Edwards AFB, CA  
13           • Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH  
14           • Persons with knowledge from Northrop Grumman, Boeing and Lockheed Martin, AFP 42, CA  
15           • If needed, record custodian from Palmdale Water District, CA

16 For response to Paragraph I.3(B):

- 17           • Brigadier General Michael Brewer, Commander, Edwards AFB, CA  
18           • James Judkins, Base Civil Engineer, Edwards AFB, CA  
19           • Lt Col Gene Cummins, Director, AFP 42, CA  
20           • Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH  
21           • A current or former Air Force Historian to authenticate the documentary, possibly from WPAFB, OH

22 For response to Paragraph IV.1(A):

- 23           • Brigadier General Michael Brewer, Commander, Edwards AFB, CA  
24           • James Judkins, Base Civil Engineer, Edwards AFB, CA  
25           • Lt Col Gene Cummins, Director, AFP 42, CA  
26           • Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH

27 For response to Paragraph IV.1(B):

- 28           • This question asks for a legal theory and therefore no person will testify on its behalf.

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For response to Paragraph IV.1(C):

- For authentication of historical documents:
- Rand Herbert, JRP Historical Consulting, LLC, Davis, CA
- For quantities of water reserved to meet present and future needs:
- Brigadier General Michael Brewer, Commander, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA
- Lt Col Gene Cummins, Director, AFP 42, CA
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH

For response to Paragraph IV.1(D):

- For authentication of historical documents:
- Rand Herbert, JRP Historical Consulting, LLC, Davis, CA

For response to Paragraph IV.1(E):

- Brigadier General Michael Brewer, Commander, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA
- Lt Col Gene Cummins, Director, AFP 42, CA
- Jared Scott, Chief, Industrial Facilities Branch, Wright Patterson AFB, OH

For response to Paragraph IV.1(F):

- This question call for a legal conclusion and therefore no person will testify.

For response to Paragraph IV.1(G):

- For authentication of historical documents:
- Rand Herbert, JRP Historical Consulting, LLC, Davis, CA

For response to Paragraph IV.1(H):

- Rand Herbert, JRP Historical Consulting, LLC, Davis, CA

For response to Paragraph IV.1(I):

- For authentication of historical documents:
- Rand Herbert, JRP Historical Consulting, LLC, Davis, CA

For response to Paragraph IV.1(J):

- Dr. June Oberdorfer, Hydrogeologist, San Jose, CA

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For response to Paragraph IV.1(L):

- Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA

For response to Paragraph IV.1(M)-(O):

- Gerald Boetsch, Mechanical Engineer, Edwards AFB, CA
- James Judkins, Base Civil Engineer, Edwards AFB, CA

8.[sic] The responding party's responses must be accompanied by an executed verification by an individual authorized to do so.

- See accompanying verification.

Respectfully submitted this 22nd day of February 2013.

IGNACIA S. MORENO  
Assistant Attorney General  
Environment & Natural Resources Division

/s/ Lee Leininger  
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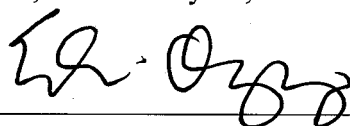
1 VERIFICATION

2 I, Edwin Oyarzo, declare:

3 I am a Department of the Air Force attorney assigned to this action. I am authorized to  
4 make this verification for and on its behalf. I make this verification for that reason. I have read  
5 the foregoing UNITED STATES' REVISED RESPONSE TO COURT'S DISCOVERY  
6 ORDER FOR PHASE 4 TRIAL, and know its contents. I am informed and believe and on that  
7 ground allege that the matters stated therein are true.

8 I declare under penalty of perjury under the laws of the State of California that the  
9 foregoing is true and correct.

10 Executed at San Francisco, California, on February 22, 2013.

11 

12 Edwin Oyarzo