DEFENSE THREAT REDUCTION AGENCY
8725 JOHN J. KINGMAN ROAD, STOP 6201
FORT BELVOIR, VA 22060-6201

February 17, 2022

Cliff Kincaid
President, America's Survival, Inc.
8221 Frances Lane
Owings, MD 20736

Re: FOIA Case No.: 20-041

Dear Cliff Kincaid:

This is a final response to your Freedom of Information Act (FOIA) request perfected on May 4, 2020, and assigned FOIA case number 20-041 by the Defense Threat Reduction Agency (DTRA). You requested a copy of files, documents, or any material relating to Defense Threat Reduction Agency grants to the EcoHealth Alliance pertaining to Grant HDTRA11910033.

Enclosed is a copy of documents totaling 59 pages. These records are being released to you in part. Some information is being withheld under FOIA Exemptions 4 and 6.

Exemption 4 of the FOIA protects trade secrets and commercial or financial information obtained from a person that is privileged or confidential. The confidential commercial information withheld under Exemption 4 in the responsive documents is treated as private by Ecohealth. Ecohealth provided the commercial and financial information to DTRA under an assurance of confidentiality.

Exemption 6 applies to information, which, if released, would constitute a clearly unwarranted invasion of the personal privacy of an individual. In this case, some individuals' names, salaries, personal email addresses, and cell phone numbers have been redacted due to security and privacy concerns. Those names do not directly reveal the operations of the federal government and therefore, fall outside the ambit of public interest that FOIA was enacted to serve. As a result, the privacy interest outweighs the public interest in those names.

Determinations for this interim release were made by the Initial Denial Authority (IDA), Mr. Earl Washington, Chief, Records Management, FOIA, and Privacy Act Division / DTRA Records Officer, Information Management and Technology Directorate, on behalf of DTRA. If you consider this decision to be an adverse determination, you may file a written appeal that is postmarked no later than 90 calendar days after the date of this letter to the Deputy Director, Defense Threat Reduction Agency, Information Management and Technology Directorate, ATTN: FOIA/PA Office, 8725 John J. Kingman Road, MSC 6201, Fort Belvoir, Virginia 22060. The appeal should reference the FOIA/Privacy Act case number, contain a concise statement of the grounds upon which the appeal is brought, and a description of the relief sought. A copy of this letter should also accompany your appeal. Both the envelope and your letter should clearly identify that a Freedom of Information Act and/or a Privacy Act Appeal is being made.

Should you have additional questions or concerns regarding this case, you may seek dispute resolution services from the DTRA FOIA Public Liaison or the Office of Government Information Services (OGIS). The DTRA FOIA Public Liaison, Mr. Mario Vizcarra, may be contacted by phone at (703)767-1792 or by email at dtrafoiaprivacy@mail.mil. The contact information for OGIS can be found at www.archives.gov/ogis.

Sincerely,

Eugene McGirt

Eugene McGirt
FOIA/Privacy Act Specialist
Freedom of Information/Privacy Act Office

Enclosure(s):
As stated

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 9

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00002	24-Mar-2020		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
DEFENSE THREAT REDUCTION AGENCY/AL-AC 8725 JOHN J. KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201	HDTRA1	OFFICE OF NAVAL RESEARCH-BOSTON 495 SUMMER STREET, ROOM 627 BOSTON MA 02110-2109	N62879

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
ECOHEALTH ALLIANCE INC. MR. ALEKSEI CHMURA 460 W 34TH ST 17TH FL NEW YORK NY 10001-2317		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. HDTRA11910033
	X	10B. DATED (SEE ITEM 13) 15-Aug-2019
CODE 3MMU3	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

☐ B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

☐ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

X D. OTHER (Specify type of modification and authority)
Terms & Conditions, Paragraph 5 Modification of the Grant

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Modification Control Number: robinson20960

The purpose of this modification is to:

(1) Combine the scope and value from Option CLINs 0002, 0003, 0004, and 0005 into base CLIN 0001.

(2) Extend the PoP of CLIN 0001 through August 18, 2024 at no addtional cost to the Government.

(3) Update Grant POC.

(4) Update grant funding profile and invoice schedule.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6) / CONTRACTING OFFICER TEL: (b)(6) EMAIL: (b)(6)	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 24-Mar-2020

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $3,990,550.00 from $998,464.00 to $4,989,014.00.

SECTION B - SUPPLIES OR SERVICES AND PRICES

CLIN 0001

The unit price amount has increased by $3,990,550.00 from $998,464.00 to $4,989,014.00.
The unit of issue Lot has been added.
The total cost of this line item has increased by $3,990,550.00 from $998,464.00 to $4,989,014.00.

CLIN 0002

The CLIN extended description has changed from:

Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics.In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B.

To:

FOR MISSION CONTINUITY, THE SCOPE AND VALUE FROM CLIN 0002 HAS BEEN COMBINED WITH CLIN 0001. THIS OPTION IS NOT TO BE EXERCISED.

The pricing detail quantity has decreased by 1.00 from 1.00 to 0.00.
The total cost of this line item has decreased by $998,181.00 from $998,181.00 to $0.00.

CLIN 0003

The CLIN extended description has changed from:

Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics.In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B.

To:

FOR MISSION CONTINUITY, THE SCOPE AND VALUE FROM CLIN 0003 HAS BEEN COMBINED WITH CLIN 0001. THIS OPTION IS NOT TO BE EXERCISED.

The pricing detail quantity has decreased by 1.00 from 1.00 to 0.00.
The total cost of this line item has decreased by $997,709.00 from $997,709.00 to $0.00.

CLIN 0004
The CLIN extended description has changed from:

Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics.In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B.

To:

FOR MISSION CONTINUITY, THE SCOPE AND VALUE FROM CLIN 0004 HAS BEEN COMBINED WITH CLIN 0001. THIS OPTION IS NOT TO BE EXERCISED.

The pricing detail quantity has decreased by 1.00 from 1.00 to 0.00.
The total cost of this line item has decreased by $997,193.00 from $997,193.00 to $0.00.

CLIN 0005
The CLIN extended description has changed from:

Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics.In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B.

To:

FOR MISSION CONTINUITY, THE SCOPE AND VALUE FROM CLIN 0005 HAS BEEN COMBINED WITH CLIN 0001. THIS OPTION IS NOT TO BE EXERCISED.

The pricing detail quantity has decreased by 1.00 from 1.00 to 0.00.
The total cost of this line item has decreased by $997,467.00 from $997,467.00 to $0.00.

SUBCLIN 000103 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000103					$0.00
	Funding for CLIN 0001 FFP				
				NET AMT	$0.00
	ACRN AC CIN: HDTRA10343770001				$3,990,550.00

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

The following have been modified:

252.601-9002 GRANT REFERENCE INFORMATION (MAY 2009)

a. This grant is awarded as a result of Broad Agency Announcement (BAA) **HDTRA1-14-24-FRCWMD-BAA**, Research and Development Enterprise, Basic and Applied Sciences Directorate, Basic Research for Combating Weapons of Mass Destruction (C-WMD).

b. **CFDA #:** 12.351

c. **Authority:** 10 U.S.C. 2358 as amended

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for SUBCLIN 000103:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	N/A

SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0001 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE

POP 19-AUG-2019 TO 18-AUG-2020	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2019 TO 18-AUG-2024	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

The following Delivery Schedule item for CLIN 0002 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2020 TO 18-AUG-2021	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2020 TO 18-AUG-2021	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

The following Delivery Schedule item for CLIN 0003 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE

POP 19-AUG-2021 TO 18-AUG-2022	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2021 TO 18-AUG-2022	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

The following Delivery Schedule item for CLIN 0004 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2022 TO 18-AUG-2023	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2022 TO 18-AUG-2023	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

The following Delivery Schedule item for CLIN 0005 has been changed from:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2023 TO 18-AUG-2024	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

To:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
POP 19-AUG-2023 TO 18-AUG-2024	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $3,990,550.00 from $998,437.00 to $4,988,987.00.

SUBCLIN 000103:
Funding on SUBCLIN 000103 is initiated as follows:

ACRN: AC

CIN: HDTRA10343770001

Acctng Data: 044315 097 0134 000 N 20202022 D 3400 0901515BR_KD_BP_TB_20 2022_0134_3400_SCNCT DTRA 410

Increase: $3,990,550.00

Total: $3,990,550.00

The following have been modified:

252.632-9000 GRANT FUNDING PROFILE (MAR 2012)

FUNDING PROFILE:
The amount of $4,989,014 is obligated for work to be performed during the period beginning with grant award and continuing through August 18, 2024.

The Government's liability is limited to the amount obligated.

INVOICE SCHEDULE

1	9/19/2019	$83,205.33
2	10/19/2019	$83,205.33
3	11/19/2019	$83,205.33
4	12/19/2019	$83,205.33
5	1/19/2020	$83,205.33
6	2/19/2020	$83,205.33
7	3/19/2020	$83,205.33
8	4/19/2020	$83,205.33
9	5/19/2020	$83,205.34
10	6/19/2020	$83,205.34
11	7/19/2020	$83,205.34
12	8/19/2020	$83,205.34
13	9/19/2020	$83,181.75
14	10/19/2020	$83,181.75
15	11/19/2020	$83,181.75
16	12/19/2020	$83,181.75
17	1/19/2021	$83,181.75
18	2/19/2021	$83,181.75
19	3/19/2021	$83,181.75
20	4/19/2021	$83,181.75
21	5/19/2021	$83,181.75
22	6/19/2021	$83,181.75
23	7/19/2021	$83,181.75
24	8/19/2021	$83,181.75
25	9/19/2021	$83,142.42
26	10/19/2021	$83,142.42
27	11/19/2021	$83,142.42
28	12/19/2021	$83,142.42
29	1/19/2022	$83,142.42
30	2/19/2022	$83,142.42
31	3/19/2022	$83,142.42
32	4/19/2022	$83,142.42
33	5/19/2022	$83,142.41
34	6/19/2022	$83,142.41
35	7/19/2022	$83,142.41
36	8/19/2022	$83,142.41
37	9/19/2022	$83,099.42
38	10/19/2022	$83,099.42
39	11/19/2022	$83,099.42
40	12/19/2022	$83,099.42
41	1/19/2023	$83,099.42
42	2/19/2023	$83,099.42
43	3/19/2023	$83,099.42
44	4/19/2023	$83,099.42

45	5/19/2023	$83,099.41
46	6/19/2023	$83,099.41
47	7/19/2023	$83,099.41
48	8/19/2023	$83,099.41
49	9/19/2023	$83,122.25
50	10/19/2023	$83,122.25
51	11/19/2023	$83,122.25
52	12/19/2023	$83,122.25
53	1/19/2024	$83,122.25
54	2/19/2024	$83,122.25
55	3/19/2024	$83,122.25
56	4/19/2024	$83,122.25
57	5/19/2024	$83,122.25
58	6/19/2024	$83,122.25
59	7/19/2024	$83,122.25
60	8/19/2024	$83,122.25

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00001	27-Nov-2019		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
DEFENSE THREAT REDUCTION AGENCY/AL-AC 8725 JOHN J. KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201	HDTRA1	OFFICE OF NAVAL RESEARCH-BOSTON 495 SUMMER STREET, ROOM 627 BOSTON MA 02110-2109	N62879

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
ECOHEALTH ALLIANCE INC. MR. ALEKSEI CHMURA 460 W 34TH ST 17TH FL NEW YORK NY 10001-2317		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. HDTRA11910033
CODE 3MMU3 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 15-Aug-2019

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

☐ B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

☐ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

X D. OTHER (Specify type of modification and authority)
DTRA Terms and Conditions section 5

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: lyles20269
Incremental funding of $436.10

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) (b)(6) CONTRACTING OFFICER TEL: (b)(6) EMAIL: (b)(6)	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 27-Nov-2019

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $436.10 from $998,000.90 to $998,437.00.

SUBCLIN 000102:

AB: 044315 097 0134 000 N 20192021 D 3400 0901515BR_KD_BP_TB_19 1921_0134_3400_SCNCT DTRA 410 (CIN HDTRA19312200001) was increased by $436.10 from $996,413.90 to $996,850.00

The following have been modified:

252.601-9000 GRANT POINTS OF CONTACT (MAY 2009)

a. Grant Specialist:
Name: (b)(6)
Defense Threat Reduction Agency/AL-ACC
8725 John J. Kingman Road, MS 6201
Fort Belvoir, VA 22060-6201
telephone (b)(6)
email addr

b. Grantee Business Office:
Name: Dr. Aleksei Chmura
Title: Authorized Organizational Representative
Phone: (212) 380-4473
E-mail: chmura@ecohealthalliance.org

c. Grantee Principal Investigator (PI):
Name: Dr. William Karesh
Title: Executive Vice President of Health and Policy
Phone: (212) 380-4463
E-mail: karesh@ecohealthalliance.org

(End of Summary of Changes)

AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING	PAGE OF PAGES
		1 | 12

2. CONTRACT (Proc. Inst. Ident.) NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQUEST/PROJECT NO.
HDTRA11910033	15 Aug 2019	

5. ISSUED BY	CODE	6. ADMINISTERED BY (If other than Item 5)	CODE
DEFENSE THREAT REDUCTION AGENCY/AL-AC 8725 JOHN J. KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201	HDTRA1	OFFICE OF NAVAL RESEARCH-BOSTON 495 SUMMER STREET, ROOM 627 BOSTON MA 02110-2109	N62879

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code)	8. DELIVERY [ ] FOB ORIGIN [X] OTHER (See below)
ECOHEALTH ALLIANCE INC. MR. ALEKSEI CHMURA 460 W 34TH ST 17TH FL NEW YORK NY 10001-2317	9. DISCOUNT FOR PROMPT PAYMENT
	10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN: — ITEM
CODE 3MMU3 — FACILITY CODE	

11. SHIP TO/MARK FOR	CODE	12. PAYMENT WILL BE MADE BY	CODE
DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201	HDTRA1	DFAS COLUMBUS CENTER DFAS-CO/NORTH ENTITLEMENT OPERATIONS P.O. BOX 182317 COLUMBUS OH 43218-2317	HQ0337

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	14. ACCOUNTING AND APPROPRIATION DATA
[ ] 10 U.S.C. 2304(c)( ) [ ] 41 U.S.C. 253(c)( )	See Schedule

15A. ITEM NO.	15B. SUPPLIES/ SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
	SEE SCHEDULE				
				15G. TOTAL AMOUNT OF CONTRACT	**$998,464.00**

16. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I - THE SCHEDULE				**PART II - CONTRACT CLAUSES**	
X	A	SOLICITATION/ CONTRACT FORM	1		I	CONTRACT CLAUSES	
X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS	2 - 5			**PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.**	
X	C	DESCRIPTION/ SPECS./ WORK STATEMENT	6	X	J	LIST OF ATTACHMENTS	12
	D	PACKAGING AND MARKING				**PART IV - REPRESENTATIONS AND INSTRUCTIONS**	
X	E	INSPECTION AND ACCEPTANCE	7		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERIES OR PERFORMANCE	8				
X	G	CONTRACT ADMINISTRATION DATA	9 - 11		L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
	H	SPECIAL CONTRACT REQUIREMENTS			M	EVALUATION FACTORS FOR AWARD	

CONTRACTING OFFICER WILL COMPLETE ITEM 17 (SEALED-BID OR NEGOTIATED PROCUREMENT) OR 18 (SEALED-BID PROCUREMENT) AS APPLICABLE

17. [ ] CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)

18. [ ] SEALED-BID AWARD (Contractor is not required to sign this document.)
Your bid on Solicitation Number _____
including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the terms listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed bid contract.)

19A. NAME AND TITLE OF SIGNER (Type or print)	20A. NAME OF CONTRACTING OFFICER
	(b)(6) / CONTRACTING OFFICER TEL.: (b)(6) EMAIL: (b)(6)

19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
BY _____ (Signature of person authorized to sign)		BY (b)(6) (Signature of Contracting Officer)	15-Aug-2019

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1		$998,464.00	$998,464.00

YEAR 1: FRBAA14-6-2-0333
FFP
Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics.

In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B.
FOB: Destination

NET AMT $998,464.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000101					$0.00

Funding for CLIN 0001
FFP

NET AMT $0.00

ACRN AA $1,587.00
CIN: HDTRA19314590001

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000102					$0.00
	Funding for CLIN 0001 FFP				
				NET AMT	$0.00
	ACRN AB CIN: HDTRA19312200001				$996,413.90

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002 OPTION	YEAR 2: FRBAA14-6-2-0333 FFP Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics. In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B. FOB: Destination	1		$998,181.00	$998,181.00
				NET AMT	$998,181.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1		$997,709.00	$997,709.00
OPTION	YEAR 3: FRBAA14-6-2-0333 FFP Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics. In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B. FOB: Destination				
				NET AMT	$997,709.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		1		$997,193.00	$997,193.00
OPTION	YEAR 4: FRBAA14-6-2-0333 FFP Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics. In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B. FOB: Destination				
				NET AMT	$997,193.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1		$997,467.00	$997,467.00
OPTION	YEAR 5: FRBAA14-6-2-0333 FFP Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology, and Socio-Economics. In accordance with the following attachments: SOW at Exhibit A dated December 5,2018 and DTRA Terms and Conditions for Grant Awards, dated April 6, 2018 at Exhibit B. FOB: Destination				
				NET AMT	$997,467.00

Section C - Descriptions and Specifications

CLAUSES INCORPORATED BY FULL TEXT

252.601-9002 GRANT REFERENCE INFORMATION (MAY 2009)

a. This grant is awarded as a result of Broad Agency Announcement (BAA) **HDTRA1-14-24-FRCWMD-BAA**, Research and Development Enterprise, Basic and Applied Sciences Directorate, Basic Research for Combating Weapons of Mass Destruction (C-WMD).

b. **CFDA #:** 12.531

c. **Authority:** 10 U.S.C. 2358 as amended

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government
000101	N/A	N/A	N/A	N/A
000102	N/A	N/A	N/A	N/A
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government
0004	Destination	Government	Destination	Government
0005	Destination	Government	Destination	Government

Section F - Deliveries or Performance

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
0001	POP 19-AUG-2019 TO 18-AUG-2020	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1
000101	N/A	N/A	N/A	N/A
000102	N/A	N/A	N/A	N/A
0002	POP 19-AUG-2020 TO 18-AUG-2021	N/A	DEFENSE THREAT REDUCTION AGENCY/CT-I (b)(6) 8725 JOHN J. KINGMAN ROAD MSC 6201 FORT BELVOIR VA 22060-6201 (b)(6) FOB: Destination	HDTRA1
0003	POP 19-AUG-2021 TO 18-AUG-2022	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	HDTRA1
0004	POP 19-AUG-2022 TO 18-AUG-2023	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	HDTRA1
0005	POP 19-AUG-2023 TO 18-AUG-2024	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	HDTRA1

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 044315 097 0134 000 N 20182020 D 34HQ 0901515BR_KD_BP_OT_18 1820_0134_34HQ_SCNCT DTRA 410
AMOUNT: $1,587.00

AB: 044315 097 0134 000 N 20192021 D 3400 0901515BR_KD_BP_TB_19 1921_0134_3400_SCNCT DTRA 410
AMOUNT: $996,413.90

ACRN	CLIN/SLIN	CIN	AMOUNT
AA	000101	HDTRA19314590001	$1,587.00
AB	000102	HDTRA19312200001	$996,413.90

CLAUSES INCORPORATED BY REFERENCE

252.232-7007 Limitation Of Government's Obligation APR 2014

CLAUSES INCORPORATED BY FULL TEXT

252.601-9000 GRANT POINTS OF CONTACT (MAY 2009)

d. Grant Specialist:
Name: (b)(6)
Defense Threat Reduction Agency/AL-ACC
8725 John J. Kingman Road, MS 6201
Fort Belvoir, VA 22060-6201
telephone (b)(6)
email add

e. Grantee Business Office:
Name: Dr. Aleksei Chmura
Title: Authorized Organizational Representative
Phone: (212) 380-4473
E-mail: chmura@ecohealthalliance.org

f. Grantee Principal Investigator (PI):
Name: Dr. William Karesh
Title: Executive Vice President of Health and Policy
Phone: (212) 380-4463
E-mail: karesh@ecohealthalliance.org

252.601-9001 GRANTS OFFICER'S REPRESENTATIVE (GOR) (MAY 2009)

g. Grants Officer's Representative (GOR) for this Grant is:

Name: (b)(6)
Defense Threat Reduction Agency/BTRP
8725 John J. Kingman Road, MS 6201
Fort Belvoir, VA 22060-6201
telephone (b)(6)
email add

b. SCOPE AND LIMITATIONS OF AUTHORITY FOR DTRA GRANTS OFFICER'S REPRESENTATIVE

1. The Grants Officer's Representative (GOR) is responsible for monitoring the technical and programmatic performance of the grant or cooperative agreement (hereinafter referred to as agreement) including compliance with the agreement's reporting requirements. Perceived deviations from the agreement's terms and conditions shall be brought to the attention of appropriate recipient personnel and if not corrected, to the attention of the Grants Officer. Deviations or other occurrences indicative of the recipient's inability or unwillingness to conform to the agreement's requirements shall be brought to the immediate attention of the Grants Officer.

2. The GOR has no authority to modify the stated terms of the agreement or specifications in any manner, or to approve any action that would result in additional charges to the Government. The DTRA Grants Officer must make all such changes in writing.

3. The GOR is authorized to correspond directly with the recipient on matters within the scope and limitations of his or her authority. All such correspondence shall be signed personally by the GOR and a copy will be furnished the Grants Officer for placement in the official agreement file.

4. The GOR will provide technical advice to the recipient to the extent such advice will not alter any of the agreement's terms and conditions or result in an increase in the estimated cost of the agreement's performance as specified in the agreement. The GOR is encouraged to discuss with the recipient new ideas related to the original scope of the agreement that may be of special interest to DTRA. The GOR should also be alert for indications that any part of the research is becoming unfruitful. If, as a result of such discussions, questions arise as to the possible need for a modification, the matter shall be brought to the immediate attention of the Grants Officer. The GOR shall not direct the recipient to undertake any action that the recipient believes to be contrary to the agreement's scope, terms or conditions without the written approval of the Grants Officer.

5. Any visits to the recipient's facilities on matters pertaining to the agreement will be documented in a brief memorandum. A copy will be provided the Grants Officer for placement in the official agreement file.

6. The GOR will maintain such work files as he or she deems necessary to properly document performance of the duties and responsibilities as a GOR. Upon completion of the agreement and delivery of all required reports, such work files will be forwarded to the Grants Officer for placement in the official agreement file.

7. In performance of the GOR's duties, the GOR shall constantly stress protection of the Government's interests. Similarly, the GOR shall avoid any act which may tend to compromise the position of DTRA, any individual member of DTRA or which will impact confidence in the integrity of DTRA with the business community.

(End of Clause)

252.632-9000 GRANT FUNDING PROFILE (MAR 2012)

FUNDING PROFILE:
The amount of $998,000.90 is obligated for work to be performed during the period beginning with grant award and continuing through August 18, 2020. Additional incremental funding planned, but not obligated, is:

FY19 $463.10

The Government's liability is limited to the amount obligated.

INVOICE SCHEDULE

1	9/19/2019	$83,205.33
2	10/19/2019	$83,205.33
3	11/19/2019	$83,205.33
4	12/19/2019	$83,205.33
5	1/19/2020	$83,205.33
6	2/19/2020	$83,205.33
7	3/19/2020	$83,205.33
8	4/19/2020	$83,205.33
9	5/19/2020	$83,205.34
10	6/19/2020	$83,205.34
11	7/19/2020	$83,205.34
12	8/19/2020	$83,205.34

Section J - List of Documents, Exhibits and Other Attachments

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Exhibit A	Statement of Work	6	05-DEC-2018
Exhibit B	DTRA Terms and Conditions	18	06-APR-2018

DEFENSE THREAT REDUCTION AGENCY (DTRA)
GENERAL TERMS AND CONDITIONS FOR GRANT AWARDS

Table of Contents

1. **Terms and Conditions Incorporated by Reference.**

   The DoD Research and Development General Terms and Conditions, dated July 2016, are hereby incorporated by reference and are available for download at website http://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions.aspx.

2. **Acceptance of Grant.**

   The recipient is not required to countersign the Grant document; however, the recipient agrees to the conditions specified in the Research Grant and the Articles contained herein unless notice of disagreement is furnished to the Grants Officer within fifteen (15) calendar days after the date of the Grants Officer's signature. In case of disagreement, the recipient shall not assess the Grant any costs of the research unless and until such disagreement(s) is resolved.

3. **Recipient Responsibilities.**

   The recipient will bear primary responsibility for the conduct of the research and will exercise judgment towards attaining the stated research objectives within the limits of the Grant's Terms and Conditions.

   The Principal Investigator(s) (PI) specified in the Grant award will be continuously responsible for the conduct of the research project and will be closely involved with the research effort. The PI, operating within the policies of the recipient, is in the best position to determine the means by which the research may be conducted most effectively.

4. **Standards for Financial Management Systems.**

   Where the Federal Government guarantees or insures the repayment of money borrowed by the recipient, DTRA, at its discretion, may require adequate bonding and insurance if the bonding and insurance requirements of the recipient are not deemed adequate to protect the interest of the Federal Government.

   DTRA may require adequate fidelity bond coverage where the recipient lacks sufficient coverage to protect the Federal Government's interest.

   Where bonds are required in the situations described above, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties, as prescribed in 31 CFR Part 223, "Surety Companies Doing Business with the United States."

5. **Modification of the Grant.**

   The only method by which this Grant may be modified is by a formal, written modification signed by the Grants Officer. No other communications, whether oral or in writing, are valid.

   Prior Approvals are required as follows:

   1) Expenditures on equipment costing $5,000 or more not specifically identified in the budget at time of award. (Approval via written notification from the Grants Officer.)
   2) Expenditures for foreign travel not specifically identified in the budget at time of award. (Approval via written notification from the Grants Officer.)

3) Prior approval is not required to transfer amounts budgeted for indirect costs to absorb increases in direct costs, or vice versa.
4) Prior approval is not required to carry forward an unobligated balance to a subsequent period of performance under this award.

6. Payments.

The 2 CFR 200 governs responsibilities concerning payments, with the following clarifications:

Recipients shall submit requests for payment using Invoicing, Receipt, Acceptance, and Property Transfer (iRAPT) at https://wawf.eb.mil/. Any request for advance payments must be approved by the Administrative Grants Office shown in Block 6 of the award. The request shall be submitted to the Administrative Office identified in Block 6 of the Research Grant by entering the following routing codes:

1) *Pay Office DoDAAC*: See Block 12 (Code) on the first page of the Grant.
2) *Invoice Type*: Grant and Cooperative Agreement Voucher.
3) *Issue By DoDAAC*: See Block 5 (Code) on the first page of the Grant.
4) *Admin DoDAAC*: See Block 6 (Code) on the first page of the Grant.
5) *Grant Approver*: Same as Admin DoDAAC (Leave Ext. blank).

Payments will be made by the Defense Finance and Accounting Service (DFAS) office specified in the Research Grant (Block 12).

A foreign awardee must have a U.S. bank account and be signed up for electronic payments (electronic funds transfers (EFT)).

7. Funding Increments and/or Options.

The recipient is advised that the Grantor's obligation to provide funding for increments and/or options included in the Grant is contingent upon satisfactory performance in the judgment of the DTRA Scientific Officer/Technical Monitor and the availability of funds. Other factors will be considered before options will be exercised (for example, expenditure rate and current programmatic objectives). Accordingly, no legal liability on the part of the Grantor exists unless or until funds are made available to the Grantor and notice of such availability is confirmed in writing to the recipient. Refer to the Funding Profile in Section G of the Grant for additional incremental funding planned, but not currently obligated for the Grant.

Funding Increments – In no event is the Government obligated to reimburse the recipient for expenditures in excess of the total funds allotted by the Government to this agreement. Recipients should note that low expenditure rates reported on payment requests may be cause for deferral of future increments. The Government anticipates unilateral modifications for funding increments.

Options – If the agreement contains Option(s), the Government reserves the right to exercise the Option(s) unilaterally.

8. Patent Rights.

Patent Rights are governed by 37 CFR 401.14 with the following clarifications: All DTRA-related disclosures, confirmatory licenses to the government, patent applications, and other communications should be submitted as detailed herein.

The 37 CFR Part 401 invention reporting requirements are summarized in the table below. Unless otherwise indicated in the "Submission to DTRA" column, the grantee is required to upload the following types of invention information using iEdison (https://s-edison.info.nih.gov/iEdison/), a single web interface for government grantees to report details of inventions and patents. If the grantee organization is not already an iEdison registrant, then iEdison registration is required prior to submission of the below invention reports. The grant shall not be closed out until all invention reporting requirements are met.

Action	When	Discussion	37 CFR Reference	Submission to DTRA
Invention Report: The grantee must submit a report of any "subject" invention. The report must identify inventor(s), federal agency(ies), grant number(s), and date of any public disclosure. Date of submission establishes time frames for all future actions. Must be complete in technical detail. The report should be directed to the lead agency.	Within 2 months of inventor's initial report to the grantee contractor organization.	There is no single format for disclosing the invention to the government. The communication should include the title of the invention, date of any public disclosure, names of all inventors, source(s) of federal funding (i.e. grant number), a written description of the invention in technical detail. The invention disclosure should be signed by the inventor(s); at the very least signed by a grantee institutional official.	401.14(a)(2) 401.14(c)(1)	Submit electronically by uploading either a PDF, TIFF, or text file through iEdison.
Rights to Inventions on Subcontracts: Subcontractors retain rights to their subject inventions.	Same reporting responsibilities, obligations and time frames as prime grantee organization.	Prime grantee organization cannot require ownership of subcontractor's subject invention(s).	401.14(g)(1) 401.14(g)(2)	Invention disclosure, confirmatory license, and proof of gov't support clause shall be submitted electronically through iEdison.
Election of Title to Invention: Grantee organization must notify the federal agency sponsor that it will retain ownership of invention and take steps to commercialize the invention.	Within 2 years of reporting the invention to the lead federal agency sponsor. (If disclosed publicly, this period is decreased.)		401.14(b) 401.14(f)(1) 401.14(c)(2)	Submit electronically through iEdison.
Confirmatory license The grantee organization must provide a nonexclusive, nontransferable, irrevocable, paid-up license for the government to practice or have the invention practiced on its behalf throughout the world.	Commensurate with report of any initial patent filing, unless the invention is being licensed as an unpatented biological material or research tool.		401.14(f)(1)	Submit electronically by uploading either a PDF or TIFF file through iEdison.
Nonelection of Title to Invention: Grantee organization must notify the federal sponsor that it will not retain ownership of an invention.	Within 2 years of reporting to federal agency sponsor. (If disclosed publicly, this period is decreased.)	Effectively a waiver to the government. After further review the federal agency sponsor may elect title on behalf of the government. Title does not actually vest with the government until government elects to retain title.	401.14(c)(2) 401.14(d)	Submit electronically through iEdison.
Assignment of Invention Rights to the Inventor: The inventor may request assignment of invention rights. Agencies support requests of this type to variously. In all cases, documentation is required when a grantee organization waives rights to the invention and the inventor(s) wishes to retain the invention rights.	At the time the grantee organization elects not to pursue title and the inventor requests rights in the invention.	First, the grantee organization must elect not to retain rights in the invention. Second, the inventor must request the assignment of rights, agree to all terms associated with invention reporting as detailed in 37 CFR 401, and must pursue commercialization of the invention through patent filing or licensing as a research tool. Specific procedures for any agency should be determined prior to initiating the request.	401.14(k)(1) non-profits	This status shall be indicated using iEdison. Submission of all other issues (such as outstanding required documents) should be resolved prior to proceeding further. Submission of the required documents will be done electronically by uploading either a PDF, TIFF, or text file through iEdison.

Action	When	Discussion	37 CFR Reference	Submission to DTRA
Initial Patent Application: The grantee must inform the government of the initial patent application that related to any subject invention. The patent application must include a government support clause.	Within 1 year after election of title, unless there is an extension.	Time frame may vary if invention becomes public. The term initial patent application means a nonprovisional U.S. national application for patent as defined in 37 CFR 1.9(a)(3). The notification must include the patent application number and filing date assigned by the USPTO. A copy of the full application is not required.	401.14(e)(3) 401.2(n)	All filing data shall be submitted via iEdison. Evidence of inclusion of government support clause shall be submitted electronically as either a PDF or TIFF file through iEdison.
Assignment to Third Party: Documentation necessary when a grantee contractor wishes to assign invention rights to third party. If the grantee contractor is a non-profit, the government must approve the assignment. For profit or small business grantee contractors do not need to seek approval. If the rights are assigned, new rights holder assumes the same reporting responsibilities as the grantee contractor organization.		If assignment approved, third party must pursue commercialization of the invention through patent filing or licensing of the invention as a research tool. Specific procedures to request third party assignment may vary between agencies. Consult DTRA prior to initiating request	401.14(k) for non-profits Note the distinction between small businesses and non-profit organizations.	Documentation shall be submitted electronically as either a PDF or TIFF file through iEdison.
Issued Patent: Grantee must provide federal agency sponsor with patent issue date, number, title of patent, and evidence of government support clause.	At the time of issue	Patent must include government support clause	401.5(f)(2) 401.14(f)(4)	All issued patent information shall be provided using iEdison. Evidence of inclusion of government support clause will be provided electronically as a PDF or TIFF file through iEdison.
Request for Extension of Time: An extension of up to two years may be requested for election of title, or one year for filing a patent application.	Prior to any statutory bar	Extension of 2 years for title election and one year for patent application are preapproved for funded inventions. Additional extensions need written approval from the federal agency sponsor.	401.14(e)(4)	Request electronically using iEdison.
Discontinuance of Patent Application, Payment of Maintenance Fees, or Defense in a Reexamination or Opposition proceeding on a Patent: Grantee must notify federal agency sponsor of changes in patent status.	At any time in the process, but prior to established deadlines	Relevant information and documents (e.g., patent application or patent) must be provided such that a determination to protect government interests can be made. The federal agency sponsor has the option to pursue the patent application or the patent if not being properly pursued or maintained. Any change in status must be reported at least 30 days prior to pending PTO office actions.	401.14(f)(3) 401.6	Indication shall be made via iEdison.

Action	When	Discussion	37 CFR Reference	Submission to DTRA
Annual Utilization Report: DTRA requires utilization reporting for all subject inventions that have had title elected or are licensed without a patent. Report includes stage of development, date of first commercial sale or use, number and type of licenses, gross income, licensing to small business, status of U.S. manufacturing and identification of any FDA-approved product names.	Annually	DTRA requires invention utilization reports on a 12 month reporting cycle beginning in the month of grantee choosing and continuing throughout duration of patent. Information requirements defined in iEdison. Note: this reporting requirement, if applicable, extends beyond the grant period.	401.14(h)	Submit electronically using iEdison.
Annual Summary Report of Inventions: Summarize all previously reported subject inventions under this grant.	Annually	Invention reports shall be filed annually due no later than 1 July of each year. Grants effective after 31 January will not require a report until 1 July of the following year. The recipient shall use DD Form 882, Report of Inventions and Subcontracts, to file invention reports. If no inventions occurred during the annual reporting period a negative report must be submitted --Email Form DD882 to dtrabas:cresearch:@mail.mil (file size must be less than 10MB). File should be named by the Grant number and "Invention Report" (e.g. HDTRA1-12-1-9999 Invention Report). --The Grant shall not be closed out until all invention reporting requirements are met.	401.5(f)(3)	No iEdison submission allowed. Submit DD Form 882, Report of Inventions and Subcontracts to: --DTRA Grants Officer, 8725 John J. Kingman Rd., MSC 6201 (#2730B), Ft. Belvoir VA 22060-6201 --Administrative Office identified in the Grant --As directed by DTRA, email or portal.
Final Invention Statement and Certification: Report all subject inventions derived or reduced to practice during the performance of the grant.	Due with the Final Technical Report within 90 days after the project ends	Invention reports shall be filed at the end of the Grant's PoP. If no inventions occurred during the lifetime of the award, a negative report must be submitted. --Email Form DD882 to dtrabas:cresearch:@mail.mil (file size must be less than 10MB). File should be named by the Grant number and "Invention Report" (e.g. HDTRA1-12-1-9999 Invention Report). --The Grant shall not be closed out until all invention reporting requirements are met.	401.5(f)(1)	No iEdison submission allowed. Submit DD Form 882, Report of Inventions and Subcontracts to: --DTRA Grants Officer, 8725 John J. Kingman Rd., MSC 6201 (#2730B), Ft. Belvoir VA 22060-6201 --Administrative Office identified in the Grant --As directed by DTRA, email or portal.

9. **<u>Technical Reporting Requirements</u>.**

Research Performance Progress Report (RPPR). Except under rare cases, RPPRs are required annually. The RPPR is due no later than 1 July of each year. Grants effective after 31 January will not require a RPPR until 1 July of the following year.

The RPPR is *not* a cumulative report. The first RPPR shall <u>only</u> include actions that occurred from the Period of Performance start date up to submission of the first RPPR. Each subsequent report shall only include actions that occurred during the 12-month period following the previous year's RPPR.

A RPPR is not required in the final year of the award if the period of performance ends within 60 days of the RPPR due date. In this instance the Final Report will satisfy the requirement. Broadly the RPPR shall address the following items:

- Accomplishments
- Products
- Participants and Other Collaborating Organizations
- Impact
- Changes/Problems

Templates and specific instructions will be provided each year in advance of the submission deadline. All files must be submitted via email to dtrabasicresearch@mail.mil (individual file size must be less than 10MB). A copy of the RPPR should also be provided to the Administrative Office identified in the Grant. The file names should be as follows:

- RPPR: Year Annual Report Grant Number, e.g. 2017 Annual Report HDTRA1-12-1-9999.
- Metrics: Year Metrics Grant Number, e.g. 2017 Metrics HDTRA1-12-1-9999.

Quad Chart. An updated quad chart must be submitted annually. A template will be provided each year in advance of the submission deadline. All files must be submitted via email to dtrabasicresearch@mail.mil (individual file size must be less than 10MB). The file name should be as follows:

- Quad Chart: Year Quad Chart Grant Number, e.g. 2017 Quad Chart HDTRA1-12-1-9999.

Annual Technical Review. At least one representative (preferably the PI) for each award is expected to attend and present at an annual technical program review meeting, unless otherwise exempted by DTRA in writing. For planning purposes reviews will typically be for two days in Northern Virginia during the spring or summer months.

Final Technical Report. A comprehensive final technical report is required: the draft document is required forty-five (45) days prior to the end of the Period of Performance and the final document is required ninety (90) days after the expiration or termination of the award.

The purpose of the final report is to document and to transition the results of the effort into the DTRA and DoD applied research community. The final report will always be sent to the Defense Technical Information Center (DTIC) and unclassified reports may be made available to the public through the National Technical Information Service (NTIS).

The final report is more than an extension of previous annual reports. The final report shall be a **comprehensive** technical summary of the significant work accomplished. The final report, where it is not readily accessible in published form should, where applicable:

- Clearly describe and illustrate the experimental equipment, setup, and procedures;
- Characterize and tabulate collected/computed data in an appendix;

- Sufficiently describe computational codes so they can be reproduced. Include a listing of the code in an appendix if possible and appropriate; and
- When the research effort culminates in the production of one or more student theses or dissertations, in these cases, the most significant advancements and conclusions (equations, figures, relationships, etc.) should be included in an executive summary. The theses or dissertations should be attached as appendices only if they are not readily available. If they are, clearly reference them and how they can be obtained. Also include in the executive summary, cumulative lists of people involved in, and publications stemming from, the research effort. Do not include copies of already submitted or published articles in the final report.

Standard Form (SF) 298, Report Documentation Page, must be used. Item 13 of the SF-298 should contain a 100 to 200 word abstract summarizing technical progress during the reporting period. The SF-298 may be found on the Internet at: http://www.gsa.gov/portal/forms/download/116146

All of the report pages should be prepared for acquisition and distribution by DTIC. All of the report pages should be of good quality for copying purposes. No pages should be missing.

The format and standard required by your institution for the preparation of theses and dissertations shall be used for the final report. In the absence of any institutional standards, you may wish to refer to the American National Standards Institute (ANSI) document Z39.18-1987, "Scientific and Technical Reports: Organization, Preparation, and Production," for guidance. The report may be obtained from:

American National Standards Institute, Inc.
1430 Broadway
New York, NY 10018

It is anticipated that all final technical reports will be unclassified and that distribution will not be limited. However, for final technical reports that require a limited distribution as deemed necessary by DTRA, a Distribution List will be provided with the comments on the draft final technical report. The Distribution List should be formatted to match the rest of the report, placed at the end of the report, and added to the Table of Contents. The number of pages in the Distribution List should be added to the total page count and included in the total number of pages cited in Block 15 of the SF-298.

The draft of the final technical report will be due not later than forty-five (45) days prior to the end of the period of performance. The draft of the final technical report (including a draft SF-298) must be submitted electronically as follows:

- Email the draft of the final technical report to dtrabasicresearch@mail.mil (file size must be less than 10MB). The file name should be 'Draft Final Report' and the Grant number, e.g. Draft Final Report HDTRA1-12-1-9999.
- Provide a copy of the report to the Administrative Office identified in the Grant.

Within thirty (30) days, this draft will be reviewed by DTRA and comments will be provided to the Grantee to ensure the report complies with DTRA final report requirements. Such review and comment does not restrict the conduct or reporting of the project research

findings/outcomes and, in accordance with Article 35, does not restrict Grantee's ability to publish. Grantee shall incorporate such requested changes so that the report incorporates and complies with agreement final reporting requirements terms. Final Technical Reports are due ninety (90) days after the expiration or termination of the award. The final submission should be made in accordance with the draft final report submission instructions.

Final Metrics. A final metrics table (in MS Excel format) is required. A template and specific instructions will be provided in advance of the submission deadline. The final metrics file should be submitted along with the Final Technical Report. The fields contained in the final metrics file are analogous to those of the annual submissions. The final metrics file shall contain only data from the last annual reporting period until the end of the award's funded Period of Performance.

- Email the final Metrics File to dtrabasicresearch@mail.mil (file size must be less than 10MB). The file name should be 'Final Metrics' and the Grant number, e.g. Final Metrics HDTRA1-12-1-9999.

10. Financial Reporting Requirements.

Federal Financial Reports (SF-425) are due no later than 1 July of each year with data "as of" 30 May of that year. Grants effective after 31 January will not require a Federal Financial Report until 1 July of the following year. All financial reports shall be submitted to the Administration Office identified in Block 6 of the Research Grant. In addition, the Federal Financial Report must be submitted electronically as follows:

- Email the Federal Financial Report to dtrabasicresearch@mail.mil (file size must be less than 10MB). The file name should be the Year, 'Federal Financial Report' and the Grant number, e.g. 2015 Federal Financial Report HDTRA1-12-1-9999.

11. Delegation of Administration Duties.

Certain grant administration duties have been delegated to the Administration Office identified in Block 6 of the Research Grant. These duties are as follows:

1) Provisionally approve all Grant and Cooperative Agreement Vouchers.
2) Perform all property administration services except the approval of recipient's requests to purchase equipment with grant funds. Such approvals must be granted by the DTRA Grants Officer.
3) Perform all plant clearance functions.
4) Approve requests for Registration for Scientific and Technical Information Services (DD Form 1540).
5) Obtain all financial report(s) (see Article 10 of this document).
6) Execute administrative closeout procedures, which include the following:
   a. Obtain the final Report of Inventions and Subcontracts (DD Form 882).
   b. Obtain final payment request, if any.
   c. Obtain final property report and dispose of purchased property and government furnished equipment (GFE) in accordance with the DoDGARs Part 22, Subpart G.
   d. Perform a review of final incurred costs and assist the Grants Officer in resolving exceptions, if any, resulting from questioned costs.
   e. Assure that all refunds due the Government are received by the Grantor.

NOTE: This term and condition is **not applicable** to instrumentation and equipment grant awards.

12. Security.

As a general rule, PI's will not need access to classified security information in the conduct of research supported under this Grant. Should it appear that access to such information is desirable the recipient shall advise the Grantor and request clearance for the investigator. Should information be developed during the course of work under this Grant that, in the judgment of the PI or the recipient, should be classified, the Grants Officer shall be notified immediately.

13. Representations and Assurances.

By accepting funds under this Grant, the recipient assures that it will comply with applicable provisions of the national policies and statutory/regulatory/executive-based requirements detailed below.

LIVE ORGANISMS. By signing this agreement or accepting funds under this agreement, the recipient assures that it will comply with applicable provisions of the following national policies concerning live organisms:

1) For human subjects:

   a) Adhere to the requirements for protection of human subjects per the DoD level terms and conditions as well as the following DTRA requirements:
   b) The recipient shall adhere to DTRA local clause 252.223-9002 – Protection of Human Subjects (Aug 2010). The full text of this clause is as follows:

      All research under this grant involving human subjects must be conducted in accordance with 32 CFR 219, 10 U.S.C 980, and DoDD 3216.02, as well as other applicable federal and state regulations. Grantees must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as regards vulnerable populations (32 CFR 219 modifications to subparts B-D of 45 CFR 46), recruitment of military research subjects (32 CFR 219), and surrogate consent (10 U.S.C. 980).

      DTRA Directive 3216.01 of June 9, 2010 establishes the DTRA Human Subjects Protection Program, sets forth the policies, defines the applicable terms, and delineates the procedures necessary to ensure DTRA compliance with federal and DoD regulations and legislation governing human subject research. The regulations mandate that all DoD activities, components, and agencies protect the rights and welfare of human subjects of study in DoD-supported research, development, test and evaluation, and related activities hereafter referred to as "research". The requirement to comply with the regulations applies to new starts and to continuing research.

      The DTRA directive requires that research using human subjects may not begin or continue until the Defense Threat Reduction Agency's Research Oversight Board (ROB) has reviewed and approved the proposed protocol. Grantees and subcontractors are required to submit a valid federal assurance for their organization

(institution, laboratory, facility) that has been issued by either DoD or the Department of Health and Human Services, and documentation of review of proposed protocols by the local Institutional Review Board (IRB) to include consent forms for any planned research using human subjects to the DTRA ROB for its review through the Grants Officer's representative (if assigned) or the Grants Officer. The ROB review is separate from, and in addition to, local IRB review.

A study is considered to involve human research subjects if: 1) there is interaction with the subject (simply talking to the subject qualifies; no needles are required); and 2) if the study involves collection and/or analysis of personal/private information about an individual, or if material used in the study contains links to such information.

Written approval to begin research or subcontract for the use of human subjects under the proposed protocol will be provided in writing from the DTRA ROB, through the Grants Officer. A copy of this approval shall be maintained by both the Grantee and the government. Any proposed modifications or amendments to the approved protocol or consent forms must be submitted to the local IRB and the DTRA ROB for review and approval. Examples of modifications/ amendments to the protocol include but are not limited to:

- a change of the PI;
- changes in duration or intensity of exposure to some stimulus or agent;
- changes in the information requested of volunteers, or changes to the use of specimens or data collected; or
- changes in perceived or measured risks or benefits to volunteers that require changes to the study.

Research pursuant to such modifications or amendments shall not be initiated without IRB and ROB approval except when necessary to eliminate apparent and immediate hazards to the subject(s).

Research projects lasting more than one year require IRB review at least annually, or more frequently as required by the responsible IRB. ROB review and approval is required annually. The Grantee or subcontractor must provide documentation of continued IRB review of protocols for ROB review and approval in accordance with these Terms and Conditions. Research must not continue without renewed ROB approval unless necessary to eliminate apparent and immediate hazards to the subject(s).

Non-compliance with any provision of this clause may result in withholding of payments under the grant pursuant to the grant's payments clause(s) and/or grant termination pursuant to the grant's termination clause(s). The government shall not be responsible for any costs incurred for research involving human subjects prior to protocol approval by the ROB.

2) For animals:

   a. Adhere to the requirements for protection of animal subjects per the DoD level terms and conditions as well as the following DTRA requirements:

b. DTRA local clause 252.235-9001 – Prohibition of Use of Laboratory Animals (Jul 2010). The full text of this clause is as follows:

The grant recipient shall obtain approval from the US Army Medical Research and Material Command (MRMC), Animal Care and Use Review Office (ACURO) prior to conducting research on live nonhuman vertebrates. Studies involving non-human primates, dogs, cats, or marine mammals will require a site visit by an ACURO laboratory animal veterinarian as a condition of approval. DoD may also conduct site visits involving research on other animals when deemed appropriate. The animal research facility is responsible for notifying the DoD sponsor if Association for the Assessment and Accreditation of Laboratory Animal Care accreditation is lost or the facility is under USDA inspection. DoD also has the right to a site inspection under these circumstances.

The grant recipient (including subcontractors) is expressly forbidden to use laboratory animals in any manner whatsoever without the express written approval of MRMC ACURO.

The grant recipient shall complete the ACURO Animal Use Appendix for Research Involving Animals found at the following web site: http://mrmc.amedd.army.mil/index.cfm?pageid=research_protections.acuro_animalappendix. Submit the completed ACURO appendix, contact information, the DTRA grant number and a copy of the grant for processing to the email address listed at the ACURO website. Once ACURO approves the effort, the grant recipient will receive written approval to begin animal use from the US Army MRMC ACURO by separate email. The grant recipient shall promptly provide a copy of the approval to the Grants Officer and Grants Officer representative. After approval, changes or protocol amendments must be submitted to and approved by ACURO before implementation.

The grant recipient, or subcontractors as appropriate, shall submit the most recent U.S. Department of Agriculture Animal Care Inspection Report annually in accordance with instructions provided.

Non-compliance with any provision of this clause may result in termination of the grant.

DoD Instruction 3216.01, dated September 13, 2010, provides policy and requirements for the use of animals in DoD-funded research based on Army Regulation 40-33. The DoD definition of animal is any live nonhuman vertebrate. All proposals that involve the use of animals must be in compliance with DoD Instruction 3216.01 and AR 40-33. DTRA requires that research using animals not begin or continue until the ACURO has reviewed and approved the proposed animal use. For animals, the provisions include rules on animal acquisition, transport, care, handling, and use in: (i) 9 CFR parts 1-4, Department of Agriculture rules that implement the Laboratory Animal Welfare Action of 1966 (U.S.C. 2131-2156); and (ii) the "Guide for the Care and Use of Laboratory Animals," National Institutes of Health Publication No. 86-23

RESEARCH INVOLVING RECOMBINANT DNA MOLECULES. Any recipient performing research involving recombinant DNA molecules and/or organisms and viruses

containing recombinant DNA molecules agrees by acceptance of this award to comply with the National Institutes of Health "Guidelines for Research Involving Recombinant DNA Molecules," July 5, 1994 (59 FR34496) amended August 5, 1994 (59 FR40170) amended April 27, 1995 (60 FR 20726), or such later revision of those guidelines as may be published in the Federal Register.

COMBATING TRAFFICKING IN PERSONS. The recipient agrees to comply with the trafficking in persons requirement in Section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)) as implemented by 2 CFR 175.

1) Provisions applicable to a recipient that is a private entity.

   a. You as the recipient, your employees, sub-recipients under this award, and sub-recipients' employees may not—
      - Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
      - Procure a commercial sex act during the period of time that the award is in effect; or
      - Use forced labor in the performance of the award or subawards under the award.

   b. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a sub-recipient that is a private entity—
      - Is determined to have violated a prohibition in paragraph 1)a. of this award term; or
      - Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph 1)a. of this award term through conduct that is either—
        - Associated with performance under this award; or
        - Imputed to you or the sub-recipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Non-procurement)," as implemented by our agency at 2 CFR Part 376.

2) Provision applicable to a recipient other than a private entity.

   a. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a sub-recipient that is a private entity—
      - Is determined to have violated an applicable prohibition in paragraph 1)a. of this award term; or
      - Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph 1)a. of this award term through conduct that is either—
        - Associated with performance under this award; or
        - Imputed to the sub-recipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide

Debarment and Suspension (Non-procurement)," as implemented by our agency at 2 CFR Part 376.

3) Provisions applicable to any recipient.

   a. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph 1)a. of this award term.

   b. Our right to terminate unilaterally that is described in paragraph 1)b. or 2)a. of this Article:
      - Implements Section 106(g) of the TVPA, as amended (22 U.S.C. 7104(g)), and
      - Is in addition to all other remedies for noncompliance that are available to us under this award.

   c. You must include the requirements of paragraph 1)a. of this award term in any subaward you make to a private entity.

4) Definitions. For purposes of this award term:

   a. "Employee" means either:
      - An individual employed by you or a sub-recipient who is engaged in the performance of the project or program under this award; or
      - Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

   b. "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

   c. "Private entity":
      - Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.
      - Includes:
        - A non-profit organization, including any non-profit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).
        - A for-profit organization.

   d. "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at Section 103 of the TVPA, as amended (22 U.S.C. 7102).

PROHIBITION ON USING FUNDS UNDER GRANTS AND COOPERATIVE AGREEMENTS WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS. The recipient agrees to comply with the requirements in section 743 of the Financial Services and General Government Appropriations Act, 2015 (Division E of the Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. 113-235):

1) The recipient may not require its employees, contractors, or sub-recipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting them from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
2) The recipient must notify its employees, contractors, or sub-recipients that the prohibitions and restrictions of any internal confidentiality agreements inconsistent with paragraph 1) of this award provision are no longer in effect.
3) The prohibition in paragraph 1) of this award provision does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
4) If the Government determines that the recipient is not in compliance with this award provision, it:
    a. Will prohibit the recipient's use of funds under this award, in accordance with section 743 of Division E of the Consolidated and Further Continuing Resolution Appropriations Act, 2015, (Pub. L. 113-235) or any successor provision of law; and
    b. May pursue other remedies available for the recipient's material failure to comply with award terms and conditions.

14. Data Collection.

Data collection activities, if any, performed under this Grant are the responsibility of the recipient. Awarding agency support of the project does not constitute approval of the survey design, questionnaire content, or data collection procedures. The recipient shall not represent to respondents that such data are being collected for or in association with the awarding agency without the specific written approval of the cognizant awarding agency official. However, this requirement is not intended to preclude mention of the awarding agency support of the project in response to an inquiry or acknowledgment of such support in any publication of this data.

15. Publications and Acknowledgement of Sponsorship.

Publication of results of the research project in an appropriate professional journal is encouraged as an important method of recording and reporting scientific information. .

The recipient agrees that in the release of information relating to the grant, such release shall include the following statement, "The project or effort depicted was or is sponsored by the Department of the Defense, Defense Threat Reduction Agency. The content of the information does not necessarily reflect the position or the policy of the federal government, and no official endorsement should be inferred." For purposes of this provision, information includes news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association proceedings, symposia, etc.

When issuing statements, press releases, requests for proposals, bid solicitations, and other documents describing projects or programs funded in whole or in part with federal money, all recipients receiving federal funds, shall clearly state: (i) the percentage of total costs of the

program or project which will be financed with federal money, and (ii) the dollar amount of federal funds for the project or program.

16. Authorization to Perform Activities Abroad.

If the award recipient is a foreign institution, the recipient assures that it has been duly authorized to operate and do business in the country or countries in which the grant is to be performed; that it has obtained all appropriate licenses, permits, and approvals required in connection with the grant's proposed activities; and that it will fully comply with all the laws, decrees, labor standards and regulations of such country or countries during the performance of the grant. U.S. Government funds may not be used in support of a project which is prohibited by law in the country or countries in which it is undertaken. DTRA does not assume responsibility for the recipient's compliance with the laws and regulations of the country or countries in which the activities are to be conducted.

17. Inconsistency between English Version and Translation of Grant.

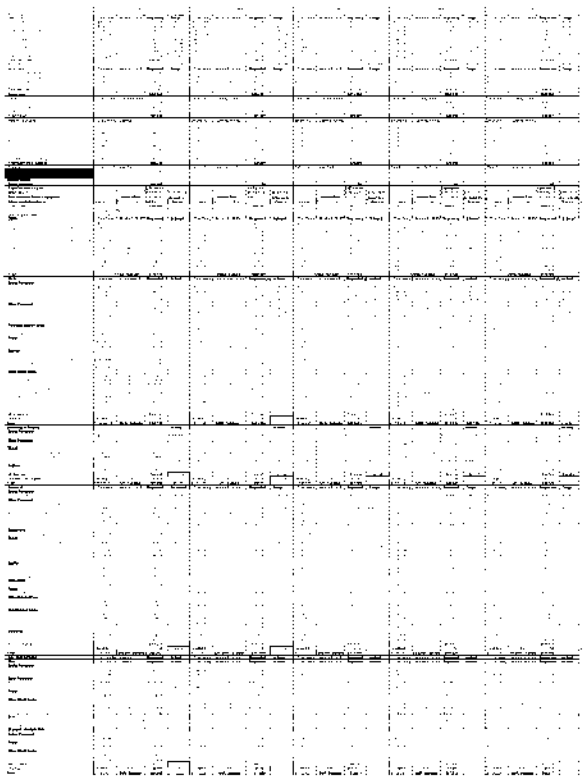
The foreign recipient shall ensure that all contract correspondence that is addressed to the U.S. Government is submitted in English or with an English translation. In the event of inconsistency between the terms of the grant and any translation thereof into another language, the meaning in the English language shall control.

18. Value Added Tax (VAT) and Other Taxes.

Prior to grant proposal submission, the recipient will require any supplier of goods or services using grant funds to consult with it, so as to avoid the imposition of such charges with respect to the goods and/or services in question, where possible. As regards to excise duties and other taxes imposed on the sale of goods or services (e.g. VAT), the recipient will require any supplier of goods or services using grant funds to verify in consultation with the recipient whether in the country where the VAT would be payable, if the recipient is exempt from such VAT or other taxes at the source, or entitled to claim reimbursement thereof. If the recipient is exempt from VAT or other taxes or entitled to claim reimbursement thereof, the recipient shall not include costs for VAT or other taxes in the grant proposal. However, the recipient may include costs in their proposal to pay for VAT costs associated with travel, including and limited to lodging, meals, and transportation. In the event that the recipient is not exempt from VAT or other taxes and is unable to claim reimbursement thereof, the recipient must itemize VAT and/or other taxes in the grant proposal. Prior to grant award, DTRA and the recipient shall mutually agree upon the use of DTRA funds for VAT or other taxes or if needed, revise project activities accordingly.

During implementation of grant activities, the recipient will notify DTRA as soon as they become aware of any VAT or other taxes, exceeding $500.00 per transaction, not identified in the grant proposal and outside those considered VAT costs associated with travel, including and limited to lodging, meals, and transportation. A "transaction" is defined as a single purchase by the recipient and transactions may not be deliberately split in order to avoid compliance with the $500.00 limit. DTRA approval in writing with documentation of extraordinary circumstances is required prior to the recipient using any DTRA funds for VAT

or other taxes exceeding $500.00 per transaction, and a grant modification may be required. The recipient understands that in the event that DTRA is unable to secure approval to use DTRA funds for VAT or other taxes exceeding $500.00 per transaction, the purchase of applicable items may not proceed. If DTRA and the recipient mutually agree to use DTRA funds to pay VAT or other taxes on any item(s) exceeding $500.00 per transaction, the recipient will include this information in its financial reports to DTRA.



	Y1	Y2	Y3	Y4	Y5	
MR	13187	14516	12416	15052	13552	
BK	11815	11815	11815	11815	12501	
CM	14216	7988	16124	7245	4844	
Int Conf travel		4900	4900	4900	4900	
Dom Conf travel	1260	4120	4120	4120	4120	1260
Meet Assaf	550	550	550	550	550	
Total	**41028**	43889	49925	43682	40467	

Dom Total	$1,810	$4,670	$4,670	$4,670	$4,670
Intn'l Total	$39,218	$39,219	$45,255	$39,012	$35,797
Total	$41,028	$43,889	$49,925	$43,682	$40,467
		39033	45191	38419	35654
	38175				

From: Amanda Andre
To: (b)(6)
Cc: William B. Karesh; Dr. Melinda Rostal; Aleksei Chmura; (b)(6)
(b)(6)
Subject: Re: [Non-DoD Source] Re: FRBAA14-6-2-0333
Date: Monday, July 8, 2019 3:01:07 PM
Attachments: EHA RVF2 Budget_Final.xlsx

Dear all,

Dr. Karesh asked me to send the attached budget.

Best,

Amanda Andre, LMSW
Program Coordinator

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

1.212.380.4470 (direct)
1.212.380.4465 (fax)
Caution-www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

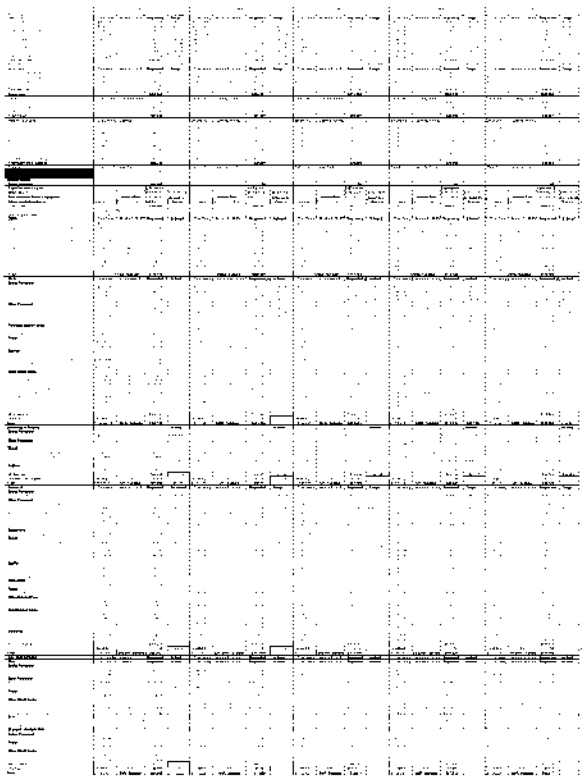
On Mon, Jul 8, 2019 at 2:49 PM Robinson, Adrea A CTR (USA) <(b)(6)
Caution-(b)(6) > wrote:

Thank you for responding so quickly. Please send what you have, because we (Contracts) actually look at more detail than what was required for the grants.gov < Caution-http://grants.gov > submission.

Thank you,

(b)(6)

From: William B. Karesh <karesh@ecohealthalliance.org < Caution-mailto:karesh@ecohealthalliance.org > >
Sent: Monday, July 8, 2019 2:46 PM



	Y1	Y2	Y3	Y4	Y5	
MR	13187	14516	12416	15052	13552	
BK	11815	11815	11815	11815	12501	
CM	14216	7988	16124	7245	4844	
Int Conf travel		4900	4900	4900	4900	
Dom Conf travel	1260	4120	4120	4120	4120	1260
Meet Assaf	550	550	550	550	550	
Total	**41028**	43889	49925	43682	40467	

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Total	$41,028	$43,889	$49,925	$43,682	$40,467
		39033	45191	38419	35654
	38175				

To: (b)(6)
Caution

Cc: Dr. Melinda Rostal <rostal@ecohealthalliance.org < Caution-mailto:rostal@ecohealthalliance.org > >; Aleksei Chmura <chmura@ecohealthalliance.org < Caution-mailto:chmura@ecohealthalliance.org > >; (b)(6)

(b)(6)

Caution-mailto (b)(6) > >; Amanda Andre <amanda.andre@ecohealthalliance.org < Caution-mailto:amanda.andre@ecohealthalliance.org > >

Subject: [Non-DoD Source] Re: FRBAA14-6-2-0333

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

Dear (b)(6)

We have a budget for the project in Excel format, but it contains more itemized details than that required for submission into the proposal submission system - i.e. multiple rows in our version have to be combined to result in the totals for some of the fields we entered into grants.gov < Caution-http://grants.gov > < Caution-Caution-http://grants.gov < Caution-http://grants.gov > > .

We can send you the version we have, but do understand that the rows will not all match one-to-one with the submission format.

Please let me know how you would like us to proceed.

William B. Karesh, D.V.M

Executive Vice President for Health and Policy

EcoHealth Alliance

460 West 34th Street - 17th Floor

New York, NY 10001 USA

+1.212.380.4463 (direct)

+1.212.380.4465 (fax)

Caution-Caution-www.ecohealthalliance.org < Caution-http://Caution-Caution-www.ecohealthalliance.org > < Caution-Caution-mailto:karesh@ecohealthalliance.org < Caution-mailto:karesh@ecohealthalliance.org > >

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On Jul 8, 2019, at 2:16 PM (b)(6) Caution-Caution-(b)(6) Caution-mailto(b)(6) > wrote:

Good Afternoon,

Please provide DTRA with a copy of your budget/cost proposal in MS Excel. Please ensure all project years are included and all formulas are visible.

Thank you,

(b)(6) Contractor

Contract Specialist

All Native Group

(b)(6)

(b)(6)

Caution- ution-
>

Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology and Socio-Economics
PI: William B. Karesh
Thrust Area 6 - Cooperative Counter Weapons of Mass Destruction Research with Global Partners FRCWMD

Statement of Work

Project Title: *Reducing the Threat of Rift Valley Fever through Ecology, Epidemiology and Socio-Economics*
Document Date: December 5, 2018

Objective: The objective of this grant is to reduce the threat of RVF by improving the understanding of RVFV circulation during inter-epidemic periods, improving local capacity to predict periods of high risk for RVF outbreaks and determining the multi-sectoral cost of RVF in the Republic of South Africa (RSA). Studies in the Free State/Northern Cape (FS/NC) and KwaZulu-Natal (KZN) regions will generate new understanding of RVF maintenance, circulation and impacts and improve risk prediction models for the country. Through multi-disciplinary investigation of three core hypotheses, the project shall strengthen South Africa's leadership role within the African continent to reduce the threat of RVF and other vector-borne diseases through the characterization of RVFV epidemiology and ecology in tropical and temperate ecosystems.

Scope: The grantee proposes a five-year multi-disciplinary study of epidemiology, ecology and socio-economic factors in RSA. The grantee team shall focus on the following major goals and milestones:

1. Characterize changes in RVFV activity in mosquitoes and sheep as the length of the inter-epidemic period increases (Y1-OY2).
   - Implement sheep cohort (FS), vector sampling (FS & KZN) and the collection of remote-sensing data; develop and implement new aspects of vector field studies (Y1 & Y3); create an *Aedes* pan distribution map (Y2).
2. Determine seroprevalence and characterize the risk factors associated with RVFV exposure in humans and domestic ruminants in KZN (Y1).
   - Modify research materials for the isiZulu speaking population; adapt the approach and implement a One Health cross-sectional study; conduct risk factor analysis.
3. Identify the socioeconomic impact of RVFV in regions where RVFV is present with and without a history of RVFV outbreaks (Y1-Y3; OY4).
   - Establish study protocols, identify economic variables and assess the economic impact of RVFV in FS/NC, KZN (Y1-3) and nationally (OY4), produce a report for policy makers.
4. Develop and implement a sustainable early warning system for RVFV in RSA.
   - Collate data collected previously and this study (Y1-3); launch prediction system on ARC website (Y3); maintain/test the prediction system (OY1-2).
5. Improving knowledge and capacity (Y1-OY2)
   - Maintain and develop new collaborations with stakeholders; transfer technology for additional diagnostic capacity at OVR; provide policy recommendations based on socio-economic analysis, training of local technical personnel; training of graduate students and post-doctoral fellow; publishing and sharing of project findings; host entomological and One Health economics workshops and annual Partners and Stakeholders Meetings.

Background: Rift Valley fever virus (RVFV) is a mosquito-borne virus of public and animal health significance. The WHO recently listed RVFV as an R&D Blueprint priority disease, noting that **fundamental research is needed on the epidemiology and entomology of RVF, including multidisciplinary studies**. RVFV ecology is complex and poorly understood, involving ruminant hosts, human behavior, and mosquito vectors with associated climatic and environmental factors. These gaps in knowledge hinder determination of risk of RVF. **RVF outbreaks are devastating to farmers**, resulting in abortion in nearly 100% of pregnant ruminants and high mortality rates among young ruminants (up to 90%). RVFV causes influenza-like symptoms and occasional retinitis in people, with a small percentage developing severe complications, such as, hepatitis, hemorrhagic fever and encephalitis, which may result in death. RVF outbreaks also have significant socio-economic impacts and are interspersed with apparent quiescent periods (no reported clinical RVF cases). Multiple species of mosquito vectors are responsible for transmitting RVFV to animals. Floodwater *Aedes* spp. are hypothesized to transmit the virus transovarially and their desiccation-resistant **eggs can lie dormant for unquantified periods of time**. Newly emerged, infected *Aedes* adults can initiate epizootics when conditions are suitable. Susceptible *Culex* spp. can subsequently amplify the outbreak. Given the high spatial resolution required to characterize flooded areas (pans), pan density and other characteristics have frequently been left out of most spatio-temporal models. The evidence for cryptic RVF transmission among livestock in some areas is clear, yet the underlying mechanisms are poorly understood.

Preliminary Data: This project builds on the five-year BTRP-funded "Understanding Rift Valley Fever in the Republic of South Africa" Project (URVFRSAP), which was focused on identifying a variety of ecological factors associated with the abundance and succession of *Aedes* and *Culex* mosquitoes, as well as patterns of immunity in ruminant and human hosts in a region where multiple, large outbreaks of RVF are known to have occurred in the Free State and Northern Cape Provinces. Despite the magnitude of these outbreaks (producers lost an estimated US$26.1 million in 2010-11) we found livestock to be highly susceptible (estimated at only 30% seroprevalence of antibodies against RVF). During the inter-epidemic period, we identified an incidence rate of 3.2% seroconversions per sheep-year. We associated several soil and vegetation factors with previous RVF livestock cases that will provide a foundation for improved RVF predictions. Preliminary findings from project partners suggest RVFV may be endemic in parts of KwaZulu-Natal (KZN), where clinical RVF has not been reported but where the seroconversion rate is extremely high (54% per animal-year; Van den Bergh, In Prep). We developed a strong relationship with stakeholders in South Africa, with 54 participants from 26 public and private institutions attending our recent Stakeholders and Partners Meeting in Pretoria. We strengthened our relationship with the Department of Agriculture, Forestry and Fisheries, by presenting regular updates and incorporating their feedback into our project. Applying a rigorous One Health investigation, the URVFRSAP has generated critical knowledge, capacity and a strong stakeholder base for South Africa to serve as a regional leader in the threat reduction of RVF.

Key references include (further references can be found in the Project Narrative):

Anyamba A, *et al.* 2010 Prediction, assessment of the Rift Valley fever activity in east and southern Africa 2006-2008 and possible vector control strategies. Am J Trop Med Hyg. 83(2):43-51.

Linthicum, K. J., *et al.* 1984 Mosquito species encountered in a flooded grassland dambo in Kenya. Mosq News 44: 228-232.

Mdlulwa, Z. & Klein, K. 2015 Socio-economic impacts of lumpy skin disease and Rift Valley fever on the South African livestock economy. (ARC-LNR Report).

Williams, R., *et al.* Anomalous high rainfall and soil saturation as combined risk indicator of Rift Valley fever outbreaks, South Africa, 2008-2011. Emerg Infect Dis 22 (2016).

***Tasks/Scientific Goals:* (Format: Year #(s).Task #. Sub-task#)**

Task Y1.1-YO2.1: Characterizing ecological factors affecting RVFV and RVFV vectors.
To improve understanding of RVFV risk in relation to climate and remote sensing indicators, vector distribution and RVFV circulation in mosquitoes, and mosquito egg survival to elucidate the role of ecological determinants, the grantee shall monitor rainfall (verified by on-site weather stations installed during the URVFRSAP), temperature, and vegetation conditions. The grantee shall utilize geospatial information sources (including long-term (2000-2017) high-resolution scenes covering areas where the 2008 to 2011 outbreaks occurred, Landsat data, ARC Land Type maps, and historical outbreak maps) to assess changes over time that may be correlated with RVF risk, including *Aedes* abundance. To monitor vector dynamics, the grantee shall select approximately 5 sites (pans) from among previous URVFRSAP sites for weekly longitudinal mosquito sampling in the FS/NC study region during the wet season (and at intervals during the dry season/winter). The awardee shall select 1-3 sites in KZN for monthly sampling to improve our understanding of the vector dynamics in this region. The grantee shall conduct quantitative real time RT-PCR for RVFV on pooled mosquito samples (by species) at NICD. The awardee shall analyze bioecological and ecological factors, produce an *Aedes* pan distribution map and develop a real-time RVF outbreak prediction system monitoring RSA. To understand survival, *Aedes* eggs shall be collected and maintained in controlled conditions for varying periods of time. After varying time periods, eggs shall be stimulated to hatch in a containment facility at the NICD before being collected for species identification and PCR-testing.

Y1.1.1-OY2.1.1 Collection of climatic data to identify different patterns associated with *Aedes* abundance.
Y1.1.2-OY2.1.2 Assess the abundance and diversity of mosquitoes, conduct egg desiccation trials.
Y2.1.3 Develop *Aedes* pan distribution map.
Y3.1.4 Complete research synthesis report across project tasks.
Y3.1.5 Mosquito mark-recapture study on the ecology of floodwater *Aedes*.
Y3.1.6 Develop an early warning system for RVF in the Republic of South Africa.
OY2.1.7 Complete analysis of all mosquito data.

Task Y1.2-YO2.2: Improve the capacity for South Africa to be a regional leader in vector-borne diseases and Rift Valley fever virus epidemiology.
Strengthening scientific capacity is a key pathway for promoting sustainability of hypothesis-driven research for RVF threat reduction. The grantee shall mentor four graduate students in project-related subjects, including epidemiology, public health, entomology, soil sciences, or laboratory sciences at local universities. The awardee shall support a post-doctoral fellow (named in key personnel) who is interested in becoming an expert in medical entomology and will split his time between UP and NICD and contribute to sample collection, identification, and analysis. The project shall facilitate technology transfer of inhibition ELISA to OVR to expand

laboratory capacity for the detection of RVFV exposure in animals and concurrently supporting operational capacity of the RSA National One Health Forum. To provide capacity strengthening and development in vector-borne disease and RVFV epidemiology to aide in threat reduction, the grantee shall organize three workshops with participants from southern/South Africa, including one on entomology (Y1) and two on One Health economics (Y3 and OY2).

Y1.2.1-OY2.2.1 Train a minimum of four graduate students in fields related to RVF.
Y1.2.2-OY2.2.2 Train post-doctoral fellow in medical entomology.
Y1.2.3 Conduct entomology workshop for participants from southern Africa.
Y2.2.4 Technology transfer of inhibition ELISA to OVR.
Y3.2.5 & OY2.2.5 Conduct One Health economics workshop for participants from southern Africa.

Task Y1.3-OY2.3: Identify patterns of RVFV exposure in ruminants in the absence of an RVF outbreak.

The project shall monitor RVFV exposure in ruminants to inform understanding of inter-epidemic circulation in sheep populations. Despite an absence of reported cases in areas of KZN, preliminary findings from project partners have indicated that RVF may be endemic in some of these areas within the province. The grantee shall conduct a cross-sectional study of domestic ruminants from up to 158 households in the KZN study area to determine RVFV seroprevalence. Under a One Health approach, households will be enrolled (Task 5) in the cross-sectional study to analyze epidemiology factors and human and animal seroprevalence levels. To improve the knowledge of antibody waning and changes in seroconversion rates, cohort sheep from the URVFRSAP in the FS/NC study area shall be re-enrolled to complete a longitudinal study over the useful lifespan of a sheep (8 years total). Serological testing of cross-sectional and cohort animal blood samples will be conducted using inhibition ELISA and may be confirmed with IgM ELISA or virus neutralization testing.

Y1.3.1 Local permissions are obtained.
Y1.3.2 Conduct cross-sectional study in KZN.
Y1.3.3-OY2.3.3 Implement sheep cohort in FS.
Y1.3.4-OY2.3.4 Conduct serological testing on all cohort and/or cross-sectional animal blood samples.
Y3.3.5 Complete research synthesis report across project tasks.
OY2.3.6 Complete analysis of ruminant cohort data.

Task Y1.4-OY2.4: Identify the socioeconomic impact of RVF within the study areas and nationally.

The awardee team believes that socio-economic determinants of RVF risk are important to understand in tandem with epidemiological and ecological factors to inform successful threat reduction. Prior studies by project partners have estimated substantial agricultural production losses to farmers in the FS and NC during the 2010-2011 outbreak; however, wider impacts of RVF, including those that may be occurring but not reported in inter-epidemic periods and those to a wider range of agricultural and non-agricultural sectors, have not been accounted for to date. The grantee shall use a One Health approach to more comprehensively investigate micro-and macro-socio-economic impacts of RVF across multiple sectors. The grantee shall collect socio-economic, spending, and loss data at household/farm level to estimate micro-socio-economic impact in KZN (conducted concurrently with the cross-sectional studies in described in Tasks 3

and 5). The grantee shall collect the same socio-economic data from households/farms in the FS/NC study area in Year 3. The grantee shall also conduct a study of national-level impacts, targeted to government and industry to identify multi-sectoral implications of RVF risk (OY1). Economic data will be paired with epidemiological data to inform prevention and control scenarios and compare cost-effectiveness. Workshops shall be held in Y3 and OY2 to strengthen regional capacity for economic analysis using a One Health approach, with a focus on policy-making for threat reduction of RVF and other zoonotic diseases. Holding two workshops should allow for multi-sectoral involvement and framing of the workshop exercises around timely stakeholder-informed policy questions and topics.

Y1.4.1 Obtain local permissions to conduct surveys.
Y1.4.2 & Y3.4.2 Conduct survey of livestock farmers to estimate spending and losses related to RVF.
Y3.4.3 Complete research synthesis report across project tasks.
OY1.4.4 Conduct survey of public and private institutions at provincial and national level to estimate spending and losses related to RVF.
OY1.4.5 Determine sectoral costs and benefits and develop associated policy recommendations.
OY2.4.6 Complete final report for policy makers.

Task Y1.5-OY2.5: Compare RVFV exposure in people in areas with different patterns of clinical RVF.

The grantee shall conduct a cross-sectional study of humans (and animals, see Task 3) in the KZN region to compare RVFV exposure patterns with the FS/NC region. The awardee shall characterize the risk of RVFV infection to people by initiating a household level cross-sectional study (a questionnaire and blood sampling). The grantee shall translate the previously written (URVFRSAP) vector-borne and zoonotic diseases booklet into isiZulu for distribution in KZN. Laboratory testing of the samples will be conducted at NICD and may include the following tests: total antibody (IgG/IgM) RVF ELISAs, inhibition ELISA, IgG specific RVF ELISAs, IgM specific RVF ELISAs, and RVFV neutralization test.

Y1.5.1 Modify and translate written questionnaire for risk analyses of RVFV infection and the written information booklet on RVF and other vector-borne diseases.
Y1.5.2 Serosurvey awareness to the community.
Y1.5.3 Conduct written questionnaire in conjunction with blood collection.
Y1.5.4 Collect blood samples from participants in the household cross-sectional study.
Y1.5.5 & Y2.5.5 Conduct serological analyses for human anti-RVFV IgG and IgM.
Y2.5.6 Complete report of results.
Y3.5.7 Complete research synthesis report across project tasks.

Task Y1.6-OY2.6: Disseminate reports to relevant stakeholders.

The grantee shall synthesize all data collected through the projects described above as well as capacity building activities in South Africa. An annual report shall be developed and disseminated to local stakeholders. A database for the extensive amount of data shall be developed and used for epidemiological analyses. The project shall submit annual sample repository information using a DTRA-specified format. Access to all samples collected and data generated during the course of the project, up to and including at least 12 months after the project end date. Scientific and general reports shall be generated and findings shall be presented as

specified in the grant schedule. A stakeholder meeting shall be held annually to describe the project and the current results. Community feedback meetings shall be held to provide aggregate findings and engage with local stakeholders through the project. These dissemination pathways shall provide opportunities to gain stakeholder input, including to inform policy questions and considerations to optimize recommendations for threat reduction to be generated by the socio-economic study.

Y1.6.1-OY2.6.1 Submit reports, including sample repository data, to DTRA.
Y1.6.2-OY2.6.2 Complete annual report to local stakeholders.
Y1.6.3-OY2.6.3 Host annual stakeholders meeting.
Y1.6.4-OY2.6.4 Conduct presentations/meetings at times and places specified in the grant schedule (Y1 Task 6), including DTRA Annual Technical Review.
Y1.6.5-OY2.6.5 Submit publications.

Performance Schedule:

Task	Year 1	Year 2	Year 3	Option Year 1	Option Year 2
Task 1. Characterizing ecological factors affecting RVFV and RVFV vectors.					
1.2 Assess the abundance and diversity of mosquitoes, conduct egg desiccation trials.					
1.3 Develop Aedes pan distribution map.					
1.4 Complete research synthesis report across project tasks.					
1.5 Mosquito mark-recapture study on the ecology of floodwater *Aedes*.					
1.6 Develop an early warning system for RVF in the Republic of South Africa					
1.7 Complete analysis of all mosquito data.					
Task 2. Improve the capacity for South Africa to be a regional leader in vector-borne diseases and Rift Valley fever virus epidemiology.					
2.2 Train post-doctoral fellow in medical entomology.					
2.3 Conduct entomology workshop for participants from southern Africa.					
2.4 Technology transfer of inhibition ELISA to OVR.					
2.5 Conduct One Health economics workshop for participants from southern Africa.					
Task 3. Identify patterns of RVFV exposure in ruminants in the absence of an RVF outbreak.					
3.1 Local permissions are obtained.					
3.2 Conduct cross-sectional study in KZN.					
3.3 Implement sheep cohort in FS.					
3.4 Conduct serological testing on all cohort and/or cross-sectional animal blood samples.					
3.5 Complete research synthesis report across project tasks.					
3.6 Complete analysis of ruminant cohort data.					
Task 4. Identify the socioeconomic impact of RVF within the study areas and nationally.					
4.1 Obtain local permissions to conduct surveys.					
4.2 Conduct survey of livestock farmers to estimate spending and losses related to RVF.					
4.3 Complete research synthesis report across project tasks.					
4.4 Conduct survey of public and private institutions at provincial and national level to estimate spending and losses related to RVF.					
4.5 Determine sectoral costs and benefits and develop associated policy recommendations.					
4.6 Complete final report for policy makers.					
Task 5. Compare RVFV exposure in people in areas with different patterns of clinical RVF.					
5.1 Modify and translate written questionnaire for risk analyses of RVFV infection and the written information booklet on RVF and other vector-borne diseases.					
5.2 Serosurvey awareness to the community.					
5.3 Conduct written questionnaire in conjunction with blood collection.					
5.4 Collect blood samples from participants in the household cross-sectional study.					
5.5 Conduct serological analyses for human anti-RVFV IgG and IgM.					
5.6 Complete report of results.					
5.7 Complete research synthesis report across project tasks.					
Task 6. Disseminate reports to relevant stakeholders.					
6.1 Submit reports, including sample repository data, to DTRA.					
6.2 Complete annual report to local stakeholders.					
6.3 Host annual stakeholders meeting.					
6.4 Conduct presentations/meetings at times and places specified in the grant schedule (Y1 Task 6), including DTRA Annual Technical Review.					
6.5 Submit publications.					