



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Pacific Southwest Region  
2800 Cottage Way, Suite W- 2606  
Sacramento, California 95825



SEP 23 2015

In Reply Refer To:  
FWS/F14AC00237 Mod 1

Point Reyes Bird Observatory  
dba Point Blue Conservation Science  
Ellie Cohen, President and CEO  
3820 Cypress Drive, #11  
Petaluma, CA. 94954  
DUNS: 119744100

Subject: Notice of Cooperative Agreement Award F14AC00237  
**Modification Number 1**

Dear Ms. Cohen:

Your organization's application for Federal financial assistance titled "Protect, conserve and monitor the Farallon Islands ecosystem" submitted to the U.S. Fish and Wildlife Service (Service)'s CFDA Program 15.608 is approved. This award is made under the authority of: Fish and Wildlife Act of 1956, as amended, (16 U.S.C. 742a-742j). For a complete list of this program's authorizing legislation, go to <https://www.cfda.gov/> and search by the CFDA Program number. This award is made based on Service approval of your organization's proposal signed on July 17, 2015, hereby incorporated by reference into this award.

This modification is to provide FY 15 funding for project segment 2 of this stewardship agreement with Point Reyes Bird Observatory doing business as Point Blue Conservation Science (Point Blue) at the U.S. Fish and Wildlife Service (Service), Farallon National Wildlife Refuge (Refuge). The objective is to protect, conserve and monitor the Farallon Islands ecosystem including but not limited to birds, mammals, salamanders, insects, other wildlife and plants.

**Type of Agreement:**

- ☐ Grant Agreement
- ☒ Cooperative Agreement
- ☐ Fire Agreement
- ☐ Challenge Cost Share
- ☐ CESU Master Agmt # \_\_\_\_\_
- ☐ NRDA

**Program:**

- ☐ Fisheries Program
- ☒ Refuges Program
- ☐ Ecological Services Program
- ☐ Science Applications
- ☐ Migratory Birds
- ☐ National Wetlands Inventory

**Type of Organization:**

<input type="checkbox"/> State Government	<input type="checkbox"/> Local Government
<input type="checkbox"/> Tribal	<input checked="" type="checkbox"/> Non-Profit Organization
<input type="checkbox"/> Higher Education Inst.	<input type="checkbox"/> For Profit Organization
	<input type="checkbox"/> Private Individual

**SAM Registration expires: June 21, 2016****Performance Period:**

The performance period of this award is April 1, 2014 through March 31, 2019. This is the period of Federal sponsorship. This project may be funded incrementally over time.

The funding period for the second segment of this project is September 3, 2015 through March 31, 2016. The total amount of Service funding available for the first segment of this project is \$189,830. Only allowable costs resulting from obligations incurred during this funding period and any pre-authorized pre-award costs may be charged to this award.

The Service may revise this award over time to add new funding for each subsequent project segment. Each project segment will be assigned a specific funding period, during which only allowable costs resulting from obligations incurred during the specified funding period may be charged to this award. All obligations incurred during a funding period must be liquidated no later than 90 calendar days after the funding period end date. You must submit a written request to the Service Project Officer before the end of the stated period if you need more time to liquidate all obligations.

The Service's obligation to provide incremental funding up to the total anticipated award amount is contingent on: 1) satisfactory Recipient performance and 2) the availability of funds. No legal liability on the part of the Service exists unless and until the Service obligates funds and notifies the Recipient in writing that funds are available for the purposes of this award.

**Funding:**

This award is funded as follows:

	<u>Service</u>	<u>Recipient</u>
This obligation:	\$189.83000	\$305,260.00
Previous obligations:	\$173.85500	\$305,260.00
<b>Award Total:</b>	<b>\$363.68500</b>	<b>\$610,520.00</b>

**Indirect Costs:** Indirect costs under this award are approved, per the Negotiated Indirect Cost Agreement submitted to the FWS Field Station, as part of the agreement package. The established rate of 35.11% is approved through 03/31/2015 or until the agreement expires or is terminated. If the NICRA expires while the agreement is effect, the recipient will be required to submit a new proposal in order to continue to charge indirect costs.

**System for Award Management (SAM) Registration:** Under the terms and conditions of this award, your organization must maintain an active SAM registration at <https://www.sam.gov/portal/public/SAM/> until the final financial report is submitted or final payment is received, whichever is later. If your organization's SAM registration expires during the required period, the Service will suspend payment

under this and all other Service awards to your organization until you update your organization's SAM registration.

**Conflict of Interest Disclosures:**

Recipients are responsible for notifying the Service Project Officer in writing of any actual or potential conflicts of interest that may arise during the life of this award. Conflicts of interest include any relationship or matter which might place the Recipient, the Recipient's employees, or the Recipient's subrecipients in a position of conflict, real or apparent, between their responsibilities under this award and any other outside interests. Conflicts of interest may also include, but are not limited to, direct or indirect financial interests, close personal relationships, positions of trust in outside organizations, consideration of future employment arrangements with a different organization, or decision-making affecting the award that would cause a reasonable person with knowledge of the relevant facts to question the impartiality of the Recipient, the Recipient's employees, or the Recipient's subrecipients in the matter. Upon receipt of such a notice, the Service Project Officer in consultation with their Ethics Counselor will determine if a conflict of interest exists and, if so, if there are any possible actions to be taken by the Recipient, the Recipient's employee(s), or the Recipient's subrecipient(s) that could reduce or resolve the conflict. Failure to resolve conflicts of interest in a manner that satisfies the Service may result in any of the remedies described in 2 CFR 200.338, Remedies for Noncompliance, including termination of this award.

**Other Mandatory Disclosures:**

Recipients and their subrecipients must disclose, in a timely manner, in writing to the Service or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting this award. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.338, Remedies for noncompliance, including suspension or debarment (See 2 CFR 200.113, 2 CFR Part 180, and 31 U.S.C. 3321).

**Project/Program Plan and Budget Revisions:**

Recipients are required to report deviations from budget or project scope or objective, and request prior approvals for budget and program plan revisions in accordance with 2 CFR 200.308 unless otherwise specifically waived in this award.

**Period of Performance Extensions:**

If additional time is needed to complete the approved project, you must send written notice to the Service Project Officer. This notice must be received by the Service Project Officer at least 10 calendar days before the authorized performance period end date, and must include supporting reasons and revised end date. Extensions for time cannot be authorized for the purpose of spending an unused balance of funds that remains after the approved project activities have been completed.

**Project Contacts:**

<b>The Service Project Officer for this award is:</b>	<b>The Recipient Project Officer for this award is:</b>
Anne Morkill San Francisco Bay NWRC 1 Marshlands Road Fremont, California 94555 510-792-0222 x123 anne_morkill@fws.gov	Ellie Cohen President and CEO 3820 Cypress Drive, #11 Petaluma, CA 94954 707-781-2555, x 318 ecohen@pointblue.org

Please contact Gerry McChesney at (510) 792-0222 x 222 or [gerry\\_mcchesney@fws.gov](mailto:gerry_mcchesney@fws.gov), with any questions. Please include the Service award number provided in the subject line of this letter in all written communications.

All other terms and conditions remain unchanged.

Sincerely,



Curt McCasland  
Refuge Supervisor



Date

**Attachments:**

Budget

Scope of Work

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 49-3-0005  
Expiration Date: 06/30/2014

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. <i>Parallon Ecosystem Monitoring and Refuge Stewardship</i>	15.608	\$	\$	\$ 152,630.00	\$ 303,260.00	\$ 457,590.00
2. <i>Salamander Power Analysis and Spatial Analysis</i>	15.608			37,200.00		37,200.00
3.						
4.						
5. Totals		\$	\$	\$ 189,830.00	\$ 303,260.00	\$ 493,090.00

# SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Farallon Ecosystem Monitoring and Refuge Stewardship		Salmon-Power Analysis and Spatial Control		
a. Personnel	\$ 361,075.00	\$ 18,810.00	\$	\$	379,885.00
b. Fringe Benefits	72,215.00	8,746.00			80,961.00
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other	24,600.00				24,600.00
I. Total Direct Charges (sum of 6a-6h)	457,890.00	27,556.00			485,446.00
J. Indirect Charges		9,644.00			9,644.00
k. TOTALS (sum of 6i and 6j)	\$ 457,890.00	\$ 37,200.00	\$	\$	495,090.00
7. Program Income	\$	\$	\$	\$	\$

Authorized for Local Reproduction

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. Farallon Ecosystem Monitoring and Refuge Stewardship	\$ 305,260.00	\$	\$	\$	
9. Salamander Power Analysis and Spatial Control					
10.					
11.					
12. TOTAL (sum of lines 8-11)	\$ 305,260.00	\$	\$	\$	
SECTION D - FORECASTED CASH NEEDS					
Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
13. Federal	\$	\$	\$	\$	
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$	
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. Farallon Ecosystem Monitoring and Refuge Stewardship	\$	\$	\$	\$	
17. Salamander Power Analysis and Spatial Control					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)	\$	\$	\$	\$	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:		22. Indirect Charges:			
23. Remarks:					

Authorized for Local Reproduction

## **SCOPE OF WORK SALAMANDER POWER ANALYSIS AND SPATIAL ANALYSIS**

**Product A: Power analysis to detect changes in the abundance of juvenile and adult Farallon arboreal salamanders under cover boards**

**Principle Investigators:** Russ Bradley, Ryan Berger, Nadav Nur, Jaime Jahncke

**Contact:** Russell Bradley (rbradley@pointblue.org)

**Objectives:**

- To determine whether current monitoring of juvenile and adult salamanders provides sufficient statistical power to demonstrate change in abundance in 5 year increments over 20 years.
- To determine if the addition of small cover boards increased our power to detect changes in juvenile salamander abundance, to inform assessments in the event of mouse eradication.
- To determine the number of years required to detect an ecologically significant change in the abundance of juvenile and adult salamanders.

**Background/Justification for study:**

A study on the Farallon arboreal salamander (*Aneides lugubris farallonensis*) population was initiated in 2006 to determine seasonal activity, relative abundance, population status and trends and reproductive behavior. This information was important to establish a baseline to measure potential impacts of the planned mouse eradication. Results from a power analysis conducted in 2012 using data from 2006-2011 indicated that pre-eradication data provided sufficient statistical power to detect a 40% increase in juvenile salamanders within two to three years of data collection post-eradication. Information drawn from the original study is unfortunately limited to a small portion of Southeast Farallon Island and was not representative of the island-wide population size or density, and relied on data that may be skewed towards larger individuals.

In order to gain a more complete understanding of abundance and distribution of this species, a series of extensive island-wide surveys were conducted from the Fall of 2012 to the Spring of 2015. In addition, this new study included “small” cover boards paired with the “large” cover boards in an attempt to increase our ability to detect juvenile salamanders. To meet our objectives listed above we plan on combining data collected in the initial study with that of the new study (8 years of data) and conduct a power analysis to examine differences in detection prior vs post implementation of the “small” boards. Based on simple analysis of the current data we believe that the small boards are increasing our detection of juvenile salamanders and that performing another power analysis with our current data will provide more robust results to aid in management decisions related to the proposed mouse eradication project.

In addition to conducting power analyses on juvenile Farallon arboreal salamanders, we will employ similar methods for adult salamander population. With that information, we can determine whether the current study design is adequate to detect changes in salamander population over the long-term. This measure is important because it reflects more on the overall salamander population, including long-term production and survivorship.

**Budget:** \$12,200

**Due dates:** Draft report will be due March 31, 2016. FWS staff will be given 30 working days to review the draft report. Final report will be due on June 15, 2016.

**Other requirements:** Recipient will meet with the Farallon Refuge Manager and FWS Inventory and Monitoring staff prior to beginning work to discuss and mutually agree on details of the analyses and final product.

**Product 2: Using habitat modeling to assess the distribution and abundance of the Farallon arboreal salamanders on Southeast Farallon Island****Principle Investigators:** Russ Bradley, Ryan Berger, Julie Howar, Nadav Nur, Jaime Jahncke**Contact:** Russell Bradley (rbradley@pointblue.org)**Objectives:**

- To identify physical and biological drivers of distribution and abundance of salamanders on the Southeast Farallon Island.
- To predict salamander habitat based on robust statistical models including the main physical and biological drivers of salamander abundance.
- To estimate salamander abundance in high use areas based on predicted densities.

**Background/Justification for study:**

A study on the Farallon arboreal salamander (*Aneides lugubris farallonensis*) population was initiated in 2006 to determine seasonal activity, relative abundance, population status and trends and reproductive behavior. This information was important to establish a baseline to measure potential impacts of the planned mouse eradication. Information drawn from this study is unfortunately limited to a small portion of Southeast Farallon Island and was not representative of the island-wide population size or density. In order to gain a more complete understanding of abundance and distribution of this species, a series of extensive island-wide surveys were conducted from the Fall of 2012 to the Spring of 2015. Current methods of reporting salamander distribution involve reporting the number of salamanders by area based on the cover boards sampled in particular transects around the island. We will use a combination of GIS and rapid assessments to characterize potential physical drivers including slope, aspect, substrate and distance to cover areas. In addition, we have detailed information on biological drivers including type and abundance of vegetation in areas where salamanders have been sampled. Vegetation may be a form of cover for salamanders and the prey they depend on. We will use this information to identify physical and biological drivers of distribution and abundance of salamanders on the Southeast Farallon Island. Specifically, we plan to use Generalized Linear Modeling (GLM), particularly Negative Binomial Regression, to develop predictive models of salamander counts based on the main physical and biological drivers controlling for inter-annual differences in environmental conditions that may have affected our sampling scheme. Having more insight into salamander distribution and abundances around the island will allow estimating minimum and maximum ( $\pm$  confidence interval) population sizes on Southeast Farallon Island.

**Budget:** \$25,000**Due dates:** Draft report will be due on June 30, 2016. FWS staff will be given 45 working days to review the draft report. Final report will be due on September 30, 2016.**Other requirements:** Recipient will meet with the Farallon Refuge Manager and FWS Inventory and Monitoring staff prior to beginning work to discuss and mutually agree on details of the analyses and final product.