



Speaker Won Pat <speaker@judiwonpat.com>

Messages and Communications

Speaker Won Pat <speaker@judiwonpat.com>  
To: Guam Legislature Clerks Office <clerks@guamlegislature.org>

Thu, Sep 15, 2016 at 9:35 AM

9/15/2016 9/14/2016 Guam State Clearing House Ref: Department of Agriculture; SAI#16008161205Y 33-16-2021

Forwarded message

From: **Melissa Tayama** <melissa.tayama@guam.gov>  
Date: Wed, Sep 14, 2016 at 1:12 PM  
Subject: FEDERAL GRANT APPLICATION: SAI# 16008161205Y  
To: Speaker Won Pat <speaker@judiwonpat.com>

Buenas yan Hafa Adai Madam Speaker,

Please see attached documents for your review regarding the Department of Agriculture's federal grant application.

Si yu'us Ma'ase'

Melissa Tayama

Grant Specialist: Guam State Clearinghouse  
OFFICE OF THE LIEUTENANT GOVERNOR  
P.O. BOX 2950 Hagatña Guam 96932  
W: (671) 475-9384  
E: [mellssa.tayama@guam.gov](mailto:mellssa.tayama@guam.gov)  
<http://gsc.guam.gov>



*Office of the Governor of Guam*

Ricardo J. Bordallo Governor's Complex, Adelup, Guam 96910  
Tel: (671) 472-8931 • Fax: (671) 477-4826 • [governor.guam.gov](http://governor.guam.gov)

Eddie Baza Calvo @eddiebazacalvo @governorcalvo govornorofguam

2016 SEP 15 AM 10:44

Ufisinan I Etmás Ge'helo 'Gi Lihestaturan Guåhan  
Office of Speaker Judith T. Won Pat, Ed.D.  
Kumiten Idukasion Tinakhelo', Kottura, Laibirihan Pubbleko siha yan Asuntun Famalao'an  
155 Hesler Place, Suite 201, Hagatna, Guam 96910  
Tel: (671) 472-3586 Fax: (671) 472-3589  
[www.guamlegislature.com](http://www.guamlegislature.com) / [speaker@judiwonpat.com](mailto:speaker@judiwonpat.com)

This message contains information which is confidential and privileged. Unless you are the intended recipient (or authorized to receive for the intended recipient), any unauthorized review, use, disclosure or distribution is strictly prohibited. If you have received this message in error, please contact the sender at [speaker@judiwonpat.com](mailto:speaker@judiwonpat.com) and destroy all copies of the message. Thank you.

2 attachments

- DOAg SAI#16008161205Y.pdf  
2652K
- SPKR.pdf  
372K

33-16-2021  
Office of the Speaker  
Judith T. Won Pat, Ed.D

Date: 9/15/16  
Time: 9:35 a.m  
Received By: CS

2021



# GUAM STATE CLEARINGHOUSE

P.O. Box 2950 Hagåtña, Guam 96932

Tel: (671) 475-9380

Website: [www.gsc.guam.gov](http://www.gsc.guam.gov)

Email: [clearinghouse@guam.gov](mailto:clearinghouse@guam.gov)

**EDDIE BAZA CALVO**

*I Maga'lâhen Guahan*

**RAY TENORIO**

*I Segundu Na Maga'lâhen Guahan*

**Kate G. Baltazar**

*Administrator*

September 14, 2016

**HONORABLE JUDITH T. WON PAT, ED. D.**

*Speaker gi I Mina'Trentai Tres Na Liheslaturan Guåhan*

155 Hesler Place

*Hagåtña, Guåhan 96910*

**Ref:** Department of Agriculture; SAI#16008161205Y

*Hafa Adai Madam Speaker,*

This letter is to respectfully notify you that the Guam State Clearinghouse (GSC) has received a federal grant application from the Department of Agriculture (DOAg). The GSC has accepted the application, assigned the State Application Identifier (SAI) 16008161205Y and has initiated the process for an intergovernmental review. An abstract of the project is provided below.

**Grantor:** U.S. Department of Interior, Fish and Wildlife Service

**Grant Title/**

**Project Title:** Cooperative Endangered Species Conservation Fund

**Details:** The Guam DOAg submitted a federal grant application requesting for \$311,075.00 to monitor and manage the population growth of the Rail (Ko'Ko') bird and the Micronesian Kingfisher (Sihek) on Rota, CNMI. Funds for this program will assist in establishing a captive breeding and release program for the Sihek and Ko'Ko birds. The budget will provide the program with personnel along with fringe benefits, travel, equipment, supplies, and contractual services.

**Start Date:** 10/01/2016

**End Date:** 09/30/2017

**Federal Grant:** \$311,075.00

GSC conducts intergovernmental reviews and solicits comments through electronic communication and this notice is sent to you as a part of the review process. A digital copy of the grant proposal is attached for your perusal. Please submit any comments you may have pertaining to this proposal to Melissa Tayama by **September 26, 2016** via email at [melissa.tayama@guam.gov](mailto:melissa.tayama@guam.gov).

*Dangkolo Na Si Yu'os Ma'åse',*

**Kate G. Baltazar**

Administrator

MMT



# Department of Agriculture Dipåttamenton Agrikottura

163 Dairy Road, Mangilao, Guam 96913



**Edward J.B. Calvo**  
Governor

**Raymond S. Tenorio**  
Lt. Governor

Director's Office	300-7965/7966; Fax 734-6569
Agricultural Dev. Services	300-7973/7972; Fax 734-8096
Animal Health	300-7965
<b>Aquatic &amp; Wildlife Resources</b>	<b>735-0294/0281; Fax 734-6569</b>
Forestry & Soil Resources	300-7976; Fax 734-0111
Plant Nursery	300-7974
Plant Inspection Facility	472-1426; 475-1427; Fax 477-9487

**Matthew L.G. Sablan**  
Director

**Jessie B. Palican**  
Deputy Director

**August 05, 2016**

## Memorandum

**To:** Administrator, Guam State Clearinghouse

**From:** Director, Department of Agriculture

**Subject:** **Project Application and Concurrent Review for FY 2017 Avicultural Management of Guam Rail (Ko'Ko') and Micronesian Kingfisher (Sihek)**

Hafa Adai! Submitted for concurrent review and clearance is the Grant Application for the project entitled, "Avicultural Management of Guam Rail (Ko'Ko') and Micronesian Kingfisher (Sihek)" in the amount of \$311,075.00.

We look forward to your approval so that we may continue our efforts to ensure Guam's birds do not become extinct. Should you have any questions, please contact DAWR Chief, Mr. Celestino F. Aguon, or Wildlife Biologist, Mrs. Laura Duenas, at 735-0294/81.

  
**MATTHEW L.G. SABLAN**

**Attachment(s):**



**RECEIVED**  
 8/10/16 mat  
 10:34



# GUAM STATE CLEARINGHOUSE

P.O. Box 2950 Hagåtña, Guam 96932  
Tel: (671) 475-9380  
Website: www.guamclearinghouse.com  
Email: clearinghouse@guam.gov

**EDWARD J.B. CALVO**  
*I Maga'låhen Guahan*

**RAYMOND S. TENORIO**  
*I Segundu Na Maga'låhen Guahan*

**KATE G. BALTAZAR**  
*Administrator*

## Guam State Clearinghouse Grantee Agreement

Current Date 8/05/16

Name of Grant Guam-ES-2017, FY2017 Avicultural Management of Guam rail (Ko'ko') and Micronesian Kingfisher (Sihek)

Agency Name Guam Agriculture

Division Name Division of Aquatic and Wildlife Resources

SAI Number \_\_\_\_\_

Grant Award Number D12AP00329

Grantor Name US Department of Interior, Fish and Wildlife Service

Grant Amount \$311,075

Grant Start Date 10/01/16

Grant End Date 09/30/2017

### RECITALS:

This grant agreement is entered into by the Guam State Clearinghouse and the Agency mentioned above.

Whereas **I Maga'låhen Guahan** is the grantee of all federal grants.

Whereas the Guam State Clearinghouse is the Government of Guam's Single Point of Contact for all Federal aid programs, grants, loans, contracts, contributions, appropriations, advances, direct Federal development and other Federal funding sources for Guam.

The Agency whose name appears above agrees to the following terms:

- 1.) Adherence to the Guam State Clearinghouse's Standard Operating Procedures (SOP).
- 2.) Adherence to all reporting requirements stemming from the SOP and the grant terms and conditions.
- 3.) Ensure the funds subject to this Agreement are used in compliance with conditions, requirements and restrictions germane to local and Federal laws, and to the provisions of the grant award.
- 4.) Make records available to the Guam State Clearinghouse, the Public Auditor of Guam, federal agencies and other authorized governmental agencies for review, audit and investigation.

This agreement is entered into by the Guam State Clearinghouse and the Agency named above effective on the grant start date and terminates three (3) business days after the grant end date on: \_\_\_\_\_

Printed Name Matthew L.G. Sablan

Director of Agency or Authorized Representative\*  
\*Authorized Representative indicated on the GSC- Notice of Intent to Apply

Kate G. Baltazar, Administrator of the GSC



# GUAM STATE CLEARINGHOUSE

P.O. Box 2950 Hagåtña, Guam 96932  
Tel: (671) 475-9380  
Website: www.guamclearinghouse.com  
Email: clearinghouse@guam.gov

EDWARD J.B. CALVO  
I Maga'låhen Guahan

RAYMOND S. TENORIO  
I Segundu Na Maga'låhen Guahan

## Grant Project Application Notice of Intent to Apply for Federal Assistance GSC FORM REVISED 03/21/2012

Guam State Clearinghouse Use Only	
Date Received:	05/10/16
Received By:	Mel Tayama
SAI Number:	160081612051

Type of Application  New Grant\*  Continuing Grant\*\*  Supplemental Grant\*\*  Other\*

A.) DUNS Number

B.) Date

C.) Applicant/Department Name

D.) Division

E.) Applicant Address

F.) Applicant/Department Point of Contact Information

Contact Person Name

Phone Number

E-mail Address

G.) Due Date to Federal Agency

H.) Federal Funds

a.) Grant

b.) Other

I.) Non-Federal, Matching Funds

a.) Local

b.) In-Kind

c.) Other

J.) TOTAL FUNDS

K.) CFDA/Federal Program Name

L.) Federal Agency Name

M.) Federal Agency Address

N.) For Continuing or Supplemental Grants, Please provide the following information:

- a.) Initial Grant Period
- b.) Guam State Clearinghouse SAI Number
- c.) Grant Year This Application Impacts

O.) Has the Federal Funding Agency been notified?  YES  NO

P.) During which Fiscal Year will this program be implemented?

Q.) If the project requires local funding in addition to the federal funding requested, please specifically identify source and rationale:

R.) This program is:  Budgeted - Please identify legal budget authority   
 Non-Budgeted

S.) Will this program require the hiring of additional employees? Is YES, please provide the number of employees (both existing and new) and justification.  YES - Existing  New   NO

T.) List Departments and Agencies that would be affected directly or indirectly by this application

U.) Please provide a Project Summary with supporting documents if needed.

- V.) Please answer the following:
- a.) Does this application require an Environmental Impact Study?  YES  NO
  - b.) Will this application conflict with any existing law?  YES  NO
  - c.) Is enabling legislation required?  YES  NO
  - d.) Will the program require a maintenance of effort?  YES  NO
  - e.) Are in-kind services allowed for this program?  YES  NO
  - f.) Does this program allow an indirect cost rate to be applied?  YES  NO

SUBMITTED AND APPROVED BY:

Printed Name, Position/Title of Authorized Representative



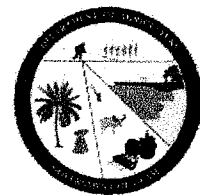
SIGNATURE

Date



# Department of Agriculture Dipattamenton Agrikottura

163 Dairy Road, Mangilao, Guam 96913



**Edward J.B. Calvo**  
Governor

**Raymond S. Tenorio**  
Lt. Governor

Director's Office	300-7965/7966; Fax 734-6569
Agricultural Dev. Services	300-7973/7972; Fax 734-8096
Animal Health	300-7965
<b>Aquatic &amp; Wildlife Resources</b>	<b>735-0294/0281; Fax 734-6569</b>
Forestry & Soil Resources	300-7976; Fax 734-0111
Plant Nursery	300-7974
Plant Inspection Facility	472-1426; 475-1427; Fax 477-9487

**Matthew L.G. Sablan**  
Director

**Jessie B. Palican**  
Deputy Director

**July 14, 2016**

Ms. Kathy Hollar  
Chief  
U.S. Fish & Wildlife Service  
911 NE 11<sup>th</sup> Avenue  
Portland, OR 97232-4181

**Re: F16AS00283 – FY 2017 Avicultural Management of Guam Rail (Ko'Ko') and Guam Micronesian Kingfisher (Sihek)**

Hafa Adai! Please find attached the Grant Application for the project entitled, "Avicultural Management of Guam Rail (Ko'Ko') and Guam Micronesian Kingfisher (Sihek)," in the amount of \$311,075.00.

Should you have any questions, please contact Chief of DAWR, Mr. Celestino F. Aguon, at (671) 735-0294/81, or via email, at [tinoaguon@gmail.com](mailto:tinoaguon@gmail.com).

Sincerely,

  
**MATTHEW L.G. SABLAN**

**Attachment(s):**

Application for Federal Assistance SF-424		
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
* 3. Date Received: Completed by Grants.gov upon submission.	4. Applicant Identifier: <input type="text"/>	
5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>	
<b>State Use Only:</b>		
6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>	
<b>8. APPLICANT INFORMATION:</b>		
* a. Legal Name: <input type="text" value="Guam Department of Agriculture"/>		
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="980018947"/>	* c. Organizational DUNS: <input type="text" value="8550232350000"/>	
<b>d. Address:</b>		
* Street1: <input type="text" value="163 Dairy Road"/>	Street2: <input type="text"/>	
* City: <input type="text" value="Mangilao"/>	County/Parish: <input type="text"/>	
* State: <input type="text" value="GU: Guam"/>	Province: <input type="text"/>	
* Country: <input type="text" value="USA: UNITED STATES"/>	* Zip / Postal Code: <input type="text" value="96913"/>	
<b>e. Organizational Unit:</b>		
Department Name: <input type="text" value="Agriculture"/>	Division Name: <input type="text" value="Aquatic and Wildlife Resources"/>	
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>		
Prefix: <input type="text" value="Mr."/>	* First Name: <input type="text" value="Celestino"/>	
Middle Name: <input type="text" value="F."/>	* Last Name: <input type="text" value="Aguon"/>	
Suffix: <input type="text"/>	Title: <input type="text" value="Division Chief"/>	
Organizational Affiliation: <input type="text"/>		
* Telephone Number: <input type="text" value="671-735-0294"/>	Fax Number: <input type="text"/>	
* Email: <input type="text" value="tinoaguon@gmail.com"/>		



**Application for Federal Assistance SF-424**

**16. Congressional Districts Of:**

\* a. Applicant

\* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**

\* a. Start Date:

\* b. End Date:

**18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="311,075.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="311,075.00"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes  No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

\*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:   
Middle Name:   
\* Last Name:   
Suffix:

\* Title:

\* Telephone Number:  Fax Number:

\* Email:

\* Signature of Authorized Representative:  \* Date Signed:

CID-7/04/16

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 01/31/2019

## 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. FY 2017 - Avicultural Management for Guam Rail (Ko'ko') and Micronesian Kingfisher (Sihok)	F16AS00283	\$ 0.00	\$ 0.00	\$ 311,075.00	\$ 0.00	\$ 311,075.00
2.						
3.						
4.						
<b>5. Totals</b>		\$	\$	\$ 311,075.00	\$	\$ 311,075.00

**SECTION C - NON-FEDERAL RESOURCES**

	(a) Grant Program		(b) Applicant		(c) State		(d) Other Sources		(e) TOTALS	
8.	FY 2017 - Avicultural Management for Guam Ralli (Ko'ko') and Micronesian Kingfisher (Sihak)			0.00		0.00		0.00		0.00
9.										
10.										
11.										
12. TOTAL (sum of lines 8-11)										

**SECTION D - FORECASTED CASH NEEDS**

	SECTION D - FORECASTED CASH NEEDS				
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 311,075.00	\$ 311,075.00			
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$ 311,075.00	\$ 311,075.00			

**SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT**

**(a) Grant Program**

**FUTURE FUNDING PERIODS (YEARS)**

	SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
		(b) First	(c) Second	(d) Third	(e) Fourth
16.	FY 2017 - Avicultural Management for Guam Ralli (Ko'ko') and Micronesian Kingfisher (Sihak)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)					

**SECTION F - OTHER BUDGET INFORMATION**

21. Direct Charges:

22. Indirect Charges:

23. Remarks:

# WSFR Section 7 Evaluation Form - PHASE 1

## To be completed by Grantee

[Note: If more space is needed for responses, attach additional sheets, or set up this form to accommodate your responses. Space provided after each evaluation element will expand as needed. After the evaluated and signed, submit a pdf copy with the grant application.]

Originating Person: Celestino Aguon State/Agency: Guam Department of Agriculture, Division of Aquatic and Wildlife Resources

Date: July 13, 2016

1. Grant Number and Project Title: Avicultural management for Guam rail (Ko'ko') and Micronesian kingfisher (Sihek)  
Grant Start Date: October 1, 2016 Grant End Date: September 30, 2017

2. County project(s) will occur in: Guam

3. Section, township, and range (or latitude and longitude): Mangilao, Guam

4. Federally Listed/Proposed/Candidate species and critical habitat present and occurring **within 1 mile of the project(s) area**: (If the list is extensive you may attach a table.)

Listed: Guam rail (*Gallirallus owstoni*) and Micronesian kingfisher (*Todiramphus cinnamominus*)

5. CHARACTERIZE THE FULL RANGE OF ACTIONS THAT WILL BE CONDUCTED (Be as specific as possible.)

Describe the project actions. Provide a map (or maps) of the project location, and include (overlay/mark) **site-specific species and critical habitat occurrences**. When describing project actions, here are some factors to consider: area size (acres, miles) of the project footprint; timing of activity (what months of the year; what's the frequency and intensity [how many visits; duration per visit]; what is the full duration of the project; will there be machinery used (helicopters, ground vehicles, mechanized tools and gear, etc); will action result in modification of the area (e.g., cutting/removal of vegetation for trails or survey lanes) and to what extent; state if and what herbicide will be used and the application regime.

For in-water work, consider the types, frequency and duration, and schedule [timing] of activities, number of persons in the water, gear/equipment that may be used (including boats), depths at which activities will occur, is work in water column only or will it also be on underlying substrate.

If there are no field-based activities, what is the nature of the proposed actions?

Reproduction of Guam rails and Micronesian kingfishers to ensure genetic stability of the populations and eventual release into the wild will occur at the Guam Department of Agriculture's Division of Aquatic and Wildlife Resources captive breeding facility in Mangilao, Guam. The project is all year long and continuous throughout the grant period and into the future (as funding allows). Birds will be paired based on genetic qualifications and allowed to raise their chicks until such time that they must be pulled from the parents to allow for newer clutches. When parent rearing cannot occur, eggs will also be incubated and chicks hand-reared to ensure survival of the offspring. Machinery to be used will be ground maintenance tools such as brush cutters and lawn mowers to maintain the yard, power and hand tools to maintain cages. Incubators and hatchery units will be used as well in the event of incubation and hand-rearing. No modification of the area will take place during this grant. No herbicide will be used in the captive breeding facility.

6. DESCRIBE WHAT THE PROJECT AIMS TO ACCOMPLISH

(Will there be (direct or indirect) benefits and of what nature to listed or candidate species or designated critical habitat?)

This project's goal is to increase the number of Guam rails and Micronesian kingfishers in captivity and to produce an adequate number of birds to be released into predator controlled locations in the wild, eventually delisting the species once wild populations are considered sustainable.

**STATE: Territory of Guam PROJECT NO.: E-4-TW Segment 8**

**SECTION 6 PROJECT NARRATIVE FOR FY 2017 FUNDING**

**PROJECT TITLE: AVICULTURAL MANAGEMENT FOR KO'KO'  
AND SIHEK**

**May 17, 2017**

**Division of Aquatic and Wildlife Resources  
Department of Agriculture, Government of Guam  
163 Dairy Road,  
Mangilao, Guam US 96913**

**(671) 735-0294 (Voice)**

population is approximately 130 birds with 11 on Guam. The Guam staff has not had any difficulties breeding kingfishers. This species is covered under a Species Survival Plan level Yellow through the AZA.

The DAWR captive breeding facility has 22 breeding pens and 130 holding pens for ko'ko', three breeding and 10 holding pens for sihek, and 10 holding pens for åga. The åga pens can also be used to house sihek. The diet preparation, record keeping, egg incubation, hand-rearing, and quarantine for the birds take place at the Wildlife Lab, which is also the location of the staff and maintenance equipment.

## **8. Project Need:**

The living population of the ko'ko' range from 120-170 birds. Due to the initial success of captive propagation, an introduction program of ko'ko' to Rota, CNMI, was initiated in 1989 to preserve wild behaviors and genetic diversity, and to serve as a source of birds for eventual reintroduction to Guam. Captive reared ko'ko' have also been successfully reintroduced to a snake-controlled locale on Northwest Field (previously known as Hunting Area 50) and Cocos Island, both on Guam. A continuous supply of ko'ko' produced in captivity is needed to support the introduction program on Rota and for reintroductions to Guam such as the Guam National Wildlife Refuge and/or the Habitat Management Unit in Northwest Field. Reproducing ko'ko' is also crucial in maintaining gene diversity. The Rota population appears to be taking hold as current surveys have detected unbanded birds, pairs and families. The population is also expanding from the release locations. As a majority of reproduction for the Guam rail is on Guam, DAWR maintains the breeding data and all transactions for the Guam Rail SSP studbook.

Both the sihek and ko'ko' SSPs are level Yellow that require full participation from institutions. Since the majority of captive ko'ko' are on Guam, the AZA's Population Management Center at the Lincoln Park Zoo, Chicago, has requested Guam be active in the Master Planning. DAWR has agreed to this commitment however not on an annual basis as is required by US zoological facilities.

Initially, wild caught sihek adapted reasonably well to captivity but most parent-reared offspring were lost in the nest prior to the implementation of hand rearing techniques. There are approximately 150 individuals in captivity with 90% of the population in US mainland zoos. GDAWR currently has eleven sihek, ten males and three females and are very closely related. The sihek breeding program is improving however factors limiting reproductive success such as premature mortality of adult birds, incompatibility and aggression, rising levels of infertility, a decline in the number of fertile eggs that hatch, and continual exposure to avian tuberculosis in extensive avian collections is still problematic within the mainland zoos. Fortunately, the sihek have an inclination for breeding on Guam and the listed issues are not apparent. A captive breeding and release program on Guam for the sihek similar to that of the ko'ko' program is needed for recovery (in concert with snake-control). This will complement mainland cooperators by producing enough sihek to begin releases into the wild. With the success of ko'ko' and åga releases in snake-controlled locations on Guam as well as the success of the Guam captive breeding program, sihek releases on Guam is possible. Decisions to release sihek on Guam or in other locations should be a collaborative effort between the USFWS, GDAWR and partnering AZA. Also, establishing non-essential experimental populations of sihek on other islands within Micronesia are currently under review.

## **9. Objectives:**

1. Breed ko'ko' and sihek to meet production objectives. Select individual ko'ko' for reproduction on Guam by culling birds with the highest mean kinship until the correct number of breeding pairs is attained (18 breeding pairs). This method of selection not only increase the genetic diversity of the captive flock but also produce birds for release that have both low inbreeding coefficients as individuals and high gene diversity as a group. Sihek selection for pair formation will be based on mean kinship of individuals.
2. Maintain breeding pens with moderate amounts of vegetation. Monitor pair-formation, egg laying and hatching of ko'ko' and sihek. Ko'ko' breed year-round therefore maintenance activities around breeding pens, such as lawn mowing, will be conducted when chicks are at least 10 days old to minimize disturbance to the breeding pairs. Ko'ko' chicks will be removed from parents at 30 days of age so successive broods will be raised by adults. Sihek chicks will remain with parents for approximately three months unless double clutching is warranted. No ground maintenance will be allowed near cages of nesting sihek.
3. Maintain captive sihek on Guam by feeding locally caught lizards as the main component to their diet. Order crickets from off-island and a mealworm colony will be maintained at the Wildlife Lab. Offer live hermit crabs to sihek for enrichment.
4. Limit hand-rearing of sihek chicks by assisting parents in supplemental feeding of chicks in the nest.
5. Train new DAWR technician at an AZA facility that houses both ko'ko' and sihek. Training will correspond with the breeding season to give staff exposure to the needs of breeding birds as well as artificial incubation and chick-rearing of both altricial and precocial chicks. New staff will also attend the Egg Incubation Course through the AZA if not done so already.
6. Maintain commitment to the AZA's SSP for the ko'ko' and sihek. Continue commitments with the AZA regarding Guam Rail and Micronesian Kingfisher Master Planning at AZA's Population Management Center. Send Laura Duenas to the PM 2000 course offered by the AZA to increase her role in the breeding of the Guam rail. It is necessary to increase the capacity at DAWR as the sihek release program gains momentum.
7. Maintain or improve facilities that house project staff members in support of endangered species recovery.
8. Contract Kevin Brink from the University of Hawaii, Hilo/USGS Hawaii to analyze the ko'ko' captive breeding program data set. Dr. Brink currently has the data set and is familiar with the captive breeding program, which is required to accomplish this objective.

## 12. **Key Staff:**

Laura Barnhart Duenas (Wildlife Biologist II) -130 days; John Quenga (Wildlife Technician II)- 145 days, Daniel Cruz (Wildlife Technician II) - 145 days, Lillian Tajeron (Wildlife Technician II) - 145 days, Wildlife Technician I – 160 days, support

**16. Budget:**

<b>BUDGET CATEGORIES</b>		
<b>Salaries</b>		<b>\$128,993.00</b>
<b>Benefits</b>		<b>\$57,851.00</b>
<b>Overtime</b>		<b>\$500.00</b>
<b>Contractual</b>		<b>\$48,000.00</b>
	<i>veterinary contract</i>	<i>\$5,000.00</i>
	<i>captive breeding data analysis</i>	<i>\$40,000.00</i>
	<i>generator fuel contract</i>	<i>\$1,000.00</i>
	<i>generator maintenance</i>	<i>\$2,000.00</i>
<b>Travel</b>		<b>\$20,700.00</b>
	<i>Micronesian kingfisher SSP meeting (LD)</i>	<i>\$4,000.00</i>
	<i>Population Management 2000 training (LD)</i>	<i>\$4,500.00</i>
	<i>Kevin Brink for data analysis x 2 visits</i>	<i>\$12,200.00</i>
<b>Supplies</b>		<b>\$28,271.00</b>
	<i>Guam rail food</i>	<i>\$5,000.00</i>
	<i>sihek lizards</i>	<i>\$19,000.00</i>
	<i>insects (crickets and mealworms)</i>	<i>\$3,686.00</i>
	<i>boots and rain gear</i>	<i>\$585.00</i>
<b>Equipment</b>		<b>\$500.00</b>
	<i>Dog food grinder</i>	<i>\$500.00</i>
<b>Utilities</b>		<b>\$2,500.00</b>
<b>Indirect Costs</b>		<b>\$23,760.00</b>
<b>Total</b>		<b>\$311,075.00</b>

**17. Project Duration:** Fiscal year 2017.

**18. State Share (Including Source Funding) and Federal Share Costs:**

State: **0%**      Federal: **100%**