



Program: Tribal College Research  
Type of application: **Student Research Experience**  
Application option: **Visiting Scholar**

## Fish Kills in the Blue Stream: A Student-Led Environmental Inquiry

Owen Knone

Green Giant Tribal College

2011-0xxxx

Disclaimer: This is a template designed to illustrate key points and potential pitfalls in the Research RFA for 2012. It could not be funded as an application--use it for suggestions not to directly copy it for use in an application.

Second, just because this is an environmental application do not assume that you should not try of other types of projects. Do not read anything into this except that it is a kind of instruction guide.

# APPLICATION FOR FEDERAL ASSISTANCE SF 424 (R&R)

3. DATE RECEIVED BY STATE	State Application Identifier
<input type="text"/>	<input type="text"/>

1. \* TYPE OF SUBMISSION

Pre-application  Application  Changed/Corrected Application

4. a. Federal Identifier

b. Agency Routing Identifier

2. DATE SUBMITTED

Applicant Identifier

5. APPLICANT INFORMATION

\* Organizational DUNS: **XXX-XXX-XXX**

\* Legal Name:

Department:  Division:

\* Street1:

Street2:

\* City:  County / Parish:

\* State:  Province:

\* Country:  \* ZIP / Postal Code:

Person to be contacted on matters involving this application

Prefix:  \* First Name:  Middle Name:

\* Last Name:  Suffix:

\* Phone Number:  Fax Number:

Email:

6. \* EMPLOYER IDENTIFICATION (EIN) or (TIN):

7. \* TYPE OF APPLICANT:

Other (Specify):

Small Business Organization Type  Women Owned  Socially and Economically Disadvantaged

8. \* TYPE OF APPLICATION:

New  Resubmission  Renewal  Continuation  Revision

If Revision, mark appropriate box(es):

A. Increase Award  B. Decrease Award  C. Increase Duration  D. Decrease Duration

E. Other (specify):

\* Is this application being submitted to other agencies? Yes  No  What other Agencies?

9. \* NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: **10.227**

TITLE:

11. \* DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

12. PROPOSED PROJECT: \* Start Date  \* Ending Date

\* 13. CONGRESSIONAL DISTRICT OF APPLICANT

14. PROJECT DIRECTOR/PRINCIPAL INVESTIGATOR

Prefix:  \* First Name:

\* Last Name:

Position/Title:

\* Organization Name:

Department:

\* Street1:

Street2:

\* City:

\* State:

\* Country:  ZIP / Postal Code:

\* Phone Number:  Fax Number:

\* Email:

If you make your title too long our data systems will not be process your grant effectively. Keep it to 10 words if possible.

If you don't put your extension and we need to call you about something important--like a pdf didn't come through--we may not be able to reach you. When choosing the number think: if they need to reach me with an emergency question about my application what number do I want to give them?

<p><b>15. ESTIMATED PROJECT FUNDING</b></p> <p>a. Total Federal Funds Requested <input style="width:150px;" type="text" value="50,000.00"/></p> <p>b. Total Non-Federal Funds <input style="width:150px;" type="text" value="0.00"/></p> <p>c. Total Federal &amp; Non-Federal Funds <input style="width:150px;" type="text" value="50,000.00"/></p> <p>d. Estimated Program Income <input style="width:150px;" type="text" value="0.00"/></p>	<p><b>16. * IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?</b></p> <p>a. YES <input type="checkbox"/> THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE: <input style="width:100px;" type="text"/></p> <p>b. NO <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372; OR <input type="checkbox"/> PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW</p>
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**17. 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 18, 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.

**18. SFLLL or other Explanatory Documentation**

**19. Authorized Representative**

Prefix:  \* First Name:  Middle Name:

\* Last Name:  Suffix:

\* Position/Title:

\* Organization:

Department:  Division:

\* Street1:

Street2:

\* City:  County / Parish:

\* State:  Province:

\* Country:  \* ZIP / Postal Code:

\* Phone Number:  Fax Number:

\* Email:

**\* Signature of Authorized Representative**

Completed on submission to Grants.gov

**\* Date Signed**

Completed on submission to Grants.gov

**20. Pre-application**

# Supplemental Information Form

OMB Number: 0524-0039  
Expiration Date: 4/30/2009

Please complete this form in conjunction with the SF-424 Application for Federal Financial Assistance.

## 1. Funding Opportunity

\* Funding Opportunity Name

NIFA SAMPLE APPLICATION PACKAGE

\* Funding Opportunity Number

USDA-NIFA-SAMPLE-PACKAGE

## 2. Program to which you are applying

\* Program Code Name

TCRGP

\* Program Code

ZY

Watch out! If you put the wrong program code the system may lose your application!! We may not even know you sent it. It NEVER HURTS to call our office and double check what you sent with what we got prior to deadline .

## \* 3. Type of Applicant

U: Tribally Controlled Colleges and Universities (TCCUs)

## 4. Additional Applicant Types

Select one of the following if applicable

## 5. Supplemental Applicant Types (Check all that apply)

- Alaska Native-Serving Institution
- Cooperative Extension Service
- Hispanic-Serving Institution
- Historically Black College or University (other than 1890)
- Minority-Serving Institution
- Native Hawaiian-Serving Institution
- Public Nonprofit Junior or Community College
- Public Secondary School
- School of Forestry
- State Agricultural Experiment Station
- Tribal College (other than 1994)
- Veterinary School or College

## 6. HHS Account Information

\* Does the legal applicant have a Department of Health and Identification Number (PIN) for CSREES awards?

Yes  No

\* What is the DHHS-PMS PIN to be used in the event of an award?

Remember, NIFA grants are now in ASAP with the U.S. Treasury. It's a good idea to check with your financial office to be sure your institution's accounts and passwords are active.

## \* 7. Key Words

Water Quality, Tribal Schools, Environmental Education, Conservation, Sustainable Farming

Key words are valuable try to use them if you can

## 8. Conflict of Interest List

Add Attachment

## RESEARCH & RELATED Other Project Information

1. \* Are Human Subjects Involved?  Yes  No

1.a If YES to Human Subjects

Is the Project Exempt from Federal regulations?  Yes  No

If **Let's talk about IRBs--Yes, in theory all our projects involve human beings, but that's not what we are talking about. This is if you are going to conduct research on people. An example would be drawing blood to see if an exercise program lowered cholesterol levels. Not doing something like that? Don't say yes to question 1. If you are, have your IRB plan ready as you are writing your application. Or better still, submit your IRB with your application. Trying to get an IRB after the award is made can really slow your money down.**

2. \* Are Vertebrate Animals Involved?

2.a. If YES to Vertebrate Animals

Is the IACUC Animal Use Exempt?  Yes  No  
If **By the way, there are four recognized exceptions to the IRB requirement. HHS has a whole page devoted to this: [http://grants.nih.gov/grants/policy/hs/faqs\\_aps\\_exempt.htm](http://grants.nih.gov/grants/policy/hs/faqs_aps_exempt.htm)**

3. \* Is proprietary/privileged information included in the application?  Yes  No

4.a. \* Does this project have an actual or potential impact on the environment?  Yes  No

4.b. If yes, please explain:

4.c. If this project has an actual or potential impact on the environment, has an exemption been authorized or an environmental assessment (EA) or environmental impact statement (EIS) been performed?  Yes  No

4.d. If yes, please explain:

5. \* Is the research performance site designated, or eligible to be designated, as a historic place?  Yes  No

5.a. If yes, please explain:

6. \* Does this project involve international collaborators?  Yes  No

6.a. If yes, identify countries:

6.b. Optional Explanation:

7. \* Project Summary/Abstract

8. \* Project Narrative

9. Bibliography & References Cited

10. Facilities & Other Resources

11. Equipment

12. Other Attachments

**Again, taking water samples from the Blue Stream that is described in this narrative would not warrant a yes answer to this question. Don't make extra work for yourself if it isn't necessary**

<input type="checkbox"/> Add Attachment	<input type="checkbox"/> Delete Attachment	<input type="checkbox"/> View Attachment
<input type="checkbox"/> Add Attachment	<input type="checkbox"/> Delete Attachment	<input type="checkbox"/> View Attachment
<input type="checkbox"/> Add Attachment	<input type="checkbox"/> Delete Attachment	<input type="checkbox"/> View Attachment
<input type="checkbox"/> Add Attachment	<input type="checkbox"/> Delete Attachment	<input type="checkbox"/> View Attachment
<input type="checkbox"/> Add Attachments	<input type="checkbox"/> Delete Attachments	<input type="checkbox"/> View Attachments

## **Project Summary**

<b>Type of application:</b>	New
<b>Type of project:</b>	Student Research Experience
<b>Project Option:</b>	Visiting Scholar
<b>Key Words:</b>	Natural Resource Conservation, Water Quality, Aquatic Health Best Management Practices
<b>Project Directors:</b>	Owen Knone –Green Giant Tribal College Sonny Skaize—Oregon State University
<b>Title:</b>	Fish Kills in the Blue Stream: A Student-Led Environmental Inquiry

Four students will explore whether the use of fertilizer on farms located on the Green Reservation in Zigzag, Oregon is at a level that has an adverse affect the health of aquatic species in the Blue Steam that runs through the reservation. Each student will be assigned one particular aspect of water quality or aquatic health to observe.

Each Student will take samples on four sections of the Blue Stream. They will take measurements chemical residues, oxygen levels and streambed sediment. While each student will focus on a particular aspect of water health they will also be able to review each other's measurements and analysis. They will also take water samples back to the college and create microscopic slides of micro-flora and fauna.

As part of this grant, the college will purchase four Digital Compound Microscopes, developed by EviroTech, Inc. which are designed to allow for images to be shared through distance learning system. This will allow our visiting scholar to see student samples and help them interpret what they are capturing with their samples and slides.

As these microscopes are also on Oregon State University it will also allow our visiting scholar, Sonny Skaize, to show slides that he has developed that will help them recognized benign samples from those that would indicate poor water quality on the Blue Stream. It will also allow Skaize to teach his classes in water ecology via distance education part-time. He will drive to campus to provide laboratory experiences and advise student researchers.

Remember: the focus of this option is to give students as much in-depth experience as possible. Notice Sonny Skaize, the co-PD trying to get teaching hours for his doctorate in science education. That's why the arrangement is mutually beneficial. Don't be afraid to look at an 1890 or 1862 Land Grants' school of education or extension office for partners.

## Project Narrative

### Statement of Need, and Program Objectives

Green Giant College has an associate degree in Natural Resources Conservation. It needs to be expanded in terms of hands-on learning, equipment and instruments for students to learn laboratory skills and the variety of courses offered. This grant, if awarded, would increase the capacity of this program in four ways. First, it would give four students a capstone experience for graduation that would train them on using a host of environmental science instruments, from high-performing microscopes to field sampling equipment. It would train them in producing careful, accurate measurement and data analysis. It would increase the instruments and tools available to Green Giant Tribal College's science department four-fold because generation of students will be able to use the microscopes, plate and sediment samplers. In addition, the microscopes, with their adaptability to distance education modules, will allow us to continue offering distance education programs with Oregon State University on a host of topics. Finally, our visiting scholar, Sonny Skaize, will be advising students to make their projects successful and teaching a course in water ecology, expanding what we can provide in our natural resources curriculum.

### Overall Project Plan:

This is a field experiment conducted by four students as a final capstone project for graduation with an associate degree in Natural Sciences from Green Giant Tribal College involving water quality and aquatic health. Each student will have access to a

resource kit with measuring tools and instruments they would be required to use as graduate and undergraduate students at Oregon State University. They will also have access to an Oregon State graduate student who will mentor them through their project from planning to poster session presentation. The visiting scholar, Sonny Skaize, will meet with the four students on the days he teaches water ecology lab to help them with their projects. He will conduct his lecture through distance education using microscopes we intend to purchase with this grant, which allow slides to be transferred across digital media.

At the beginning of the project, students will meet with the visiting scholar to design their experiment and discuss which tools would be most appropriate to the type of analysis they wish to do. They will have a choice at looking at various aspects of health of aquatic species in the blue stream or the overall water quality.

Data will be collected four times for each year-long experiment. The experiments will be repeated twice—once in the 2012-2013 by this class of graduating students and in 2013-2014 by next year's class. Each set of students will present their findings at a poster session. Student in next year's class will read the 2012 research poster presentations and cite them in the posters they present in 2014, reinforcing the nature of research that builds on past research.

Students will do their samplings four times throughout the year, giving a reading of water quality when fertilizer would be actively applied to soil and when land would be fallow. This will give an indication of the state of water quality with and without active fertilizer applications. At the end of the school year, before graduation, students will do data analysis and present findings. A key element of this project will be allowing the

students to double check each other's work in collecting samples and doing analysis of results, so that the concept of collaborative research is reinforced. Each year, each student will be assigned a checking buddy, who will perform the tests and analysis a second time to verify their results. This will give students a chance to practice using a wider variety of instruments and reinforce the concept of accuracy in data collection and analysis.

Students will be selected based on their grade point average and their performance in biology I and ecology I. Students will write an essay as to why they wish to be in the project. Four students will be selected per school year.

This project could serve as a model for schools wanted to embark on student-led research and expand teaching capacity with their 1862 Land Grant.

#### Research Projects:

After the students have designed their research with the help of the visiting scholar, they will collect samples at sites along the Blue Stream (see attached map). They will record their results obtain water samples to create microscope slides to show visiting scholar. The results and data will differ based on the type of project the student plans, but the instruments will allow them to test a host of factors from water chemistry to sediment to microscopic life. The students will verify each other's results. When they feel satisfied with their soundness, they will share them with the project director and visiting scholar and discuss how to best interpret them. They will repeat this process once a quarter and finalize by combining data, doing a final analysis and preparing their poster session.



Okay, so how is overall project plan different from research projects? Let the first be an overview of the project with a little bit of soft selling as to why it should be funded. Use the second to give details about the actual research project and how the experiments will be carried out.

Another key point of this project is to protect the student's safety. This Green Reservation has treacherous rock formation and the Blue Stream has dangerously swift current. The students will gather data with their research partner and meet at the student rendezvous and the end of their sampling day. They will decide as partners how and when to sample during each quarter and how best to verify each other's data gathering. They will also be compensated for mileage driving to sampling sites. If they wish, the visiting scholar can meet them at the rendezvous point, verify their results and discuss them at the conclusion of their sampling day.

The entire project is designed so that the students mentor each other, as well as receive instruction and guidance from the project director and visiting scholar. Students will also present their findings to the Reservation's agricultural board. If results suggest the fertilizer levels are too high, the students, growers and the tribe will discuss solutions so that growers can still farm profitably, but in a more sustainable manner.

#### Participant Commitment and Resources:

The Green Reservation fully backs this project. The community members who rely on fishing feel that Reservation farm are using too much fertilizer and that the use of manure as a soil treatment is causing fish kills. The Reservation farmers' cooperative has already agreed to discuss the matter, and modify practices, should the students' results after two years suggest a connection exists between fertilizer use and fish population health. Nevertheless, the farmers have insisted they want reliable, quantified evidence of this connection. The Reservation, on behalf of the entire community, will provide full scholarships to the students who complete the project and graduate with their associate's degree.

For a tutorial on grant writing you can access  
<http://nifa-connect.nifa.usda.gov/organize/>

The visiting scholar, Sonny Skaize, will use this temporary teaching assignment as a means to earn his doctorate in science education, as he will require a specified number of instructor hours to graduate. His advisors has given him full permission to service as an advisor to our four capstone student projects. Students will be recruited in anticipation of funding. (See cooperation with the Reservation) Students will be selected should the grant be approved. (See

This is where things get tricky. The research may not be as important as student learning or building relationships with the Reservation or with the 1862 Land Grant. You can put how the data will be evaluated, as this writer did, but you would also want to include how you would evaluate the growing confidence and skills of the students who participated in this project and the value of the data gained to the Reservation. That would be part of your evaluation.

Evaluation Methodologies and Proposed Outcomes.

This project will benefit the college by increasing its capacity to provide enhanced student education by increasing the number of classes offered, the types of hands-on learning available, the ability to conduct distance education with Oregon State and the number and type of instruments available for students to learn and master.

We will know this project is a success by the number of students who complete their research and present panels at student research forms. We will encourage students to enter their posters in competitive presentation for more in-depth feedback. We will also evaluation students progress and mastery of scientific instruments by their ability to obtain accurate readings and interpret their findings. We will also keep a record of which students go on to attend 4-year institutions and track their graduation rates.

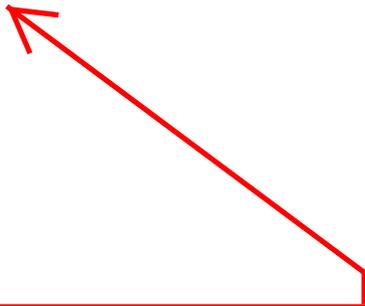
#### Literature Review:

Cuyjet, Michael J., Ed.; Howard-Hamilton, Mary F., Ed.; Cooper, Diane L., Ed.  
Multiculturalism on Campus: Theory, Models, and Practices for Understanding Diversity and Creating Inclusion 2011-02-00

Le, Cecilia; Frankfort, Jill Accelerating College Readiness: Lessons from North Carolina's Innovator Early Colleges, Jobs for the Future, 2011-03-00

Friedman, Barry A.; Mandel, Rhonda G. Motivation Predictors of College Student Academic Performance and Retention, *Journal of College Student Retention: Research, Theory & Practice*, v13 n1 p1-15 2011-2012

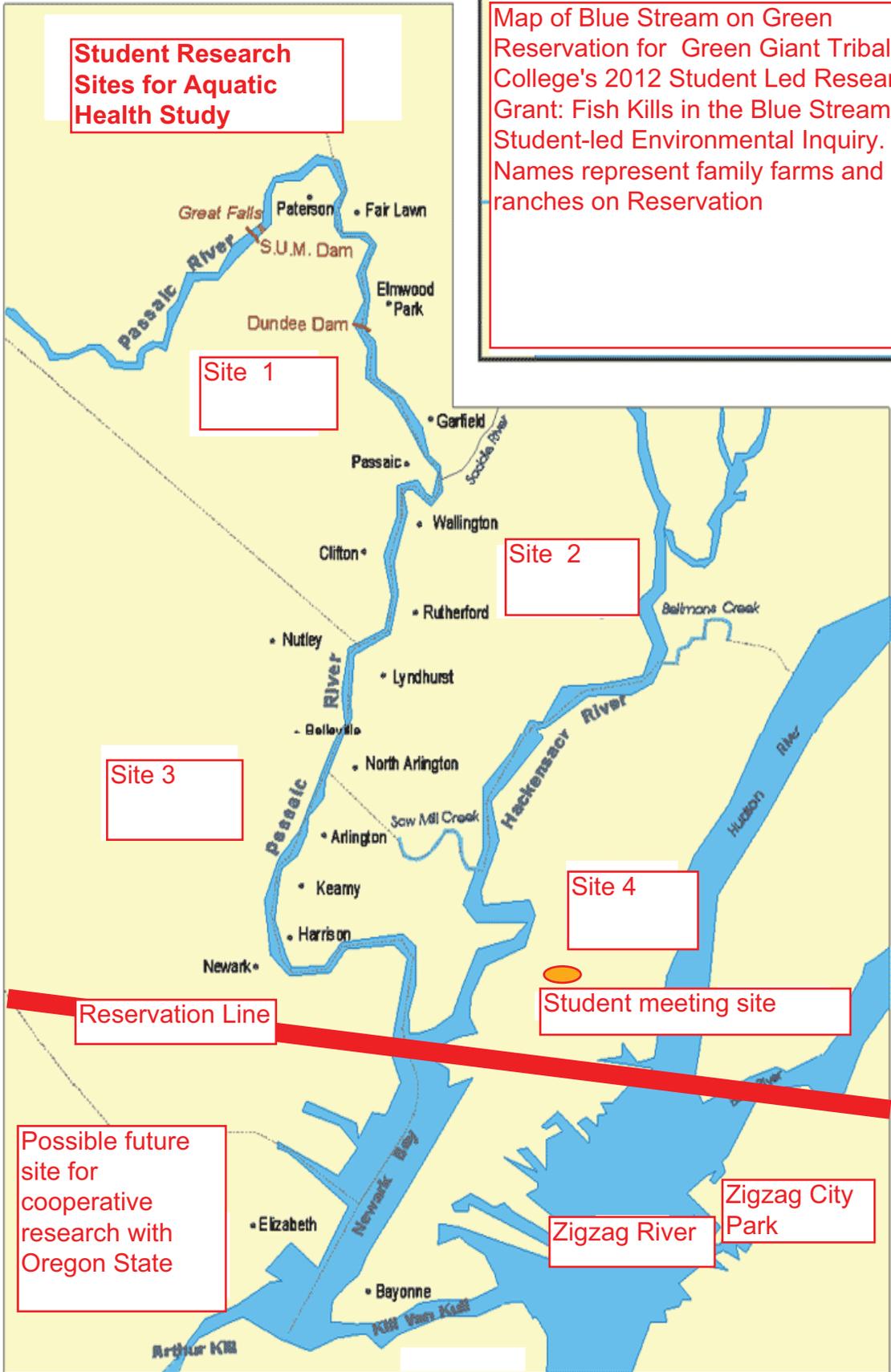
Visher, Mary G.; Teres, Jedediah, *Breaking New Ground: An Impact Study of Career-Focused Learning Communities at Kingsborough Community College*, National Center for Postsecondary Research, 2011-07-00



Your literature search would be much, much better than this. Any good research application should have data behind it.  
That's true for social science, human nutrition or any other project type. Panelists love well-planned projects.  
You can also check out this tutorial at the Tribal Web Portal <http://nifa-connect.nifa.usda.gov/research/>

**Student Research Sites for Aquatic Health Study**

Map of Blue Stream on Green Reservation for Green Giant Tribal College's 2012 Student Led Research Grant: Fish Kills in the Blue Stream: A Student-led Environmental Inquiry. Names represent family farms and ranches on Reservation



Site 1

Site 2

Site 3

Site 4

Reservation Line

Student meeting site

Possible future site for cooperative research with Oregon State

Zigzag River

Zigzag City Park

## RESEARCH & RELATED Senior/Key Person Profile (Expanded)

PROFILE - Project Director/Principal Investigator			
Prefix:	<input type="text"/>	* First Name: Owen	Middle Name: <input type="text"/>
* Last Name:	Knone	Suffix:	<input type="text"/>
Position/Title:	<input type="text"/>	Department:	<input type="text"/>
Organization Name:	Green Giant Tribal College	Division:	<input type="text"/>
* Street1:	1 Green Bean Way		
Street2:	<input type="text"/>		
* City:	Zigzag	County/ Parish:	<input type="text"/>
* State:	OR: Oregon	Province:	<input type="text"/>
* Country:	USA: UNITED STATES	* Zip / Postal Code:	97049-1111
* Phone Number:	503-555-1113	Fax Number:	<input type="text"/>
* E-Mail:	ok@ggtc.edu		
Credential, e.g., agency login:	<input type="text"/>		
* Project Role:	PD/PI	Other Project Role Category:	<input type="text"/>
Degree Type:	<input type="text"/>		
Degree Year:	<input type="text"/>		
*Attach Biographical Sketch	<input type="text"/>	Add Attachment	Delete Attachment View Attachment
Attach Current & Pending Support	<input type="text"/>	Add Attachment	Delete Attachment View Attachment

PROFILE - Senior/Key Person 1			
Prefix:	<input type="text"/>	* First Name: Sonny	Middle Name: <input type="text"/>
* Last Name:	Skaize	Suffix:	<input type="text"/>
Position/Title:	<input type="text"/>	Department:	<input type="text"/>
Organization Name:	Oregon State University	Division:	<input type="text"/>
* Street1:	100 University Drive		
Street2:	<input type="text"/>		
* City:	Corvallis		
* State:	OR: Oregon		
* Country:	USA: UNITED STATES	* Zip / Postal Code:	97331-1111
* Phone Number:	503-555-1231		
* E-Mail:	sskaize@osu.edu		
Credential, e.g., agency login:	<input type="text"/>		
* Project Role:	Co-PD/PI	Other Project Role Category:	<input type="text"/>
Degree Type:	<input type="text"/>		
Degree Year:	<input type="text"/>		
*Attach Biographical Sketch	<input type="text"/>	Add Attachment	Delete Attachment View Attachment
Attach Current & Pending Support	<input type="text"/>	Add Attachment	Delete Attachment View Attachment

Fair warning: Anyone you list as a senior or key person will have to submit: 1) a resume, 2) a conflict of interest and 3) current and pending support as part of the application. Include anyone you wish, but make sure they can provide this information if you do so.

Delete Entry

Next Person

To ensure proper performance of this form; after adding 20 additional Senior/ Key Persons; please save your application, close the Adobe Reader, and reopen it.

**Owen Knone**  
Greentree, Oregon  
Phone: 503-444-1112  
Email:oknone@ggtc.edu

**Career Objective:**

To work in a community college as a science educator.

**Summary of Qualifications:**

- Background in environmental sciences and agriculture
- Excellent written and verbal communication skills.
- Knowledge of computers and word processing.
- Ability to handle a variety of tasks.
- Four years teaching experience.

**Work Experience:**

**Green Giant Tribal College, Zigzag, OR**

Faculty –Agriculture and Environmental Science (2008 to Present)

**Job Description:**

- Conducted classes in agronomics and natural sciences at a 2-year school
- Collaborated with natural resource researchers at Oregon State University.
- Provided information to individuals in the community about how to maintain crops and farm productivity

**University of Florida Department of Agriculture, Gainesville, FL**

Crop Scientist (1992 to 2008)

**Job Description:**

- Collected and analyzed data from sweet corn and sugar farms
- Conducted environmental surveys and collaborated with residential and grower communities
- Developed and maintained cooperation between public, civic, professional, and voluntary agencies.
- Conducted appropriate research for on crop pests and disease.
- Assisted in the design and utilization of program evaluation and needs assessment tools.

**Education:**

**Doctorate in Farm and Community Development**

University of Florida, Miami (1992)

**Masters of Science** in Agronomics

University of Montana , (1990)

**Bachelors of Science** in Plant Science

University of Florida, (1989)



**CURRENT AND PENDING SUPPORT**

1. Record information for active and pending projects, including this proposal. (Concurrent submission of a proposal to other organizations will not prejudice its review by CSREES.)
2. All current efforts to which project director(s) and other senior personnel have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
3. Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors including other USDA programs.

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED	TITLE OF PROJECT
Knone, Owen	<p><b>Current:</b></p> <p>Tribal College Equity Grant</p>	\$111,400	7/1/2010-7/15/2014	75%	Green Giant Tribal College Equity Grant for Science Education
<p style="color: red;">When the award division reviews these forms, they often just read down percent of time committed, and if it equals more than 100 percent they reject it. This can slow your application down. You can make a note in the form that some of your projects are both current and pending if they are continuations.</p>					
Knone, Owen	<p><b>Pending:</b></p> <p>USDA-NIFA Research award:</p>	\$7,500	9/1/2012 8/31/2014	25%	Tribal College Research Grant: Fish Kills, Student Led-Research

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039. The time required to complete this information collection is estimated to average 1.00 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Form CSREES-2005 (12/2000)

**Sonny Skaize**  
**123 Main Street**  
**Redtree, MT 50339**  
**Home: (503) 555-1234**  
**Cell: (503) 555-1235**  
Sskaize@osu.edu

**Career Goal**

To become a principal at a science immersion high school or head of science studies at a community college

**Experience**

**Oregon State University, Doctorate Program** 2010 - Present  
Ph.D. Candidate

**University of California Public Schools** 1999 - 2010  
Science Teacher—Ecology, Human Anatomy, Geology

**Training**

**Master Teacher Training Course—Montana State Board of Education--2001**  
**Certification of Excellence In Science Education--National Association of Science Teachers--2006**

**Education**

**Masters in Science Education** 1999  
Temple University, Philadelphia, PA

**Bachelors, Biology** 1997  
Columbia University, New York, NY

**Research & Publications**

**“Educating Science in Ecology Through Experiential Learning In an Outdoor Setting”, Journal of Secondary Education, with Jones, Ph.D., DiBarry, PhD, and Herber Ph.D. 2011**

**“Reaching Spatial Learners Through Outdoor Education,” Education Psychology, Vol. 7, No. 4 pp. 44-56  
Hinton, Ph.D., Webber, Ph.D., Hildabrand, Ph.D. 2011**

**Professional Affiliations**

- National Association of Science Educators



**CURRENT AND PENDING SUPPORT**

1. Record information for active and pending projects, including this proposal. (Concurrent submission of a proposal to other organizations will not prejudice its review by CSREES.)
2. All current efforts to which project director(s) and other senior personnel have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
3. Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors including other USDA programs.

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED	TITLE OF PROJECT
Skaize, Sonny	<p><b>Current:</b></p> <p>National Science Foundation --Science Educator Scholarship</p>	\$111,400	<p>7/1/2010- 7/15/2014</p> <p>9/1/2010 8/31/2011</p>	<p>75%</p> <p>25%</p>	<p>Doctorate Program Scholarship Through Oregon State University</p>
Skaize, Sonny	<p><b>Pending:</b></p> <p>USDA-NIFA Research award:</p>	\$7,500	<p>9/1/2012 8/31/2014</p>	25%	<p>Tribal College Research Grant Visiting Scholar</p>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039. The time required to complete this information collection is estimated to average 1.00 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Form CSREES-2005 (12/2000)



Close Form

RESEARCH & RELATED BUDGET - SECTION C, D, & E, BUDGET PERIOD 1

\* ORGANIZATIONAL DUNS: [ ]

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization: Green Giant Tribal College

\* Start Date: 09/01/2012 \* End Date: 08/31/2013 Budget Period 1

C. Equipment Description

List items and dollar amount for each item exceeding \$5,000

	Equipment item	* Funds Requested (\$)
1.	[ ]	[ ]
2.	[ ]	[ ]
3.	[ ]	[ ]
4.	[ ]	[ ]
5.	[ ]	[ ]
6.	[ ]	[ ]
7.	[ ]	[ ]
8.	[ ]	[ ]
9.	[ ]	[ ]
10.	[ ]	[ ]
11.	Total funds requested for all equipment listed in the attached file	[ ]
	Total Equipment	[ ]

Additional Equipment: [ ]

Add Attachment

Delete Attachment

View Attachment

D. Travel

Funds Requested (\$)

1.	Domestic Travel Costs ( Incl. Canada, Mexico and U.S. Possessions)	4,880.00
2.	Foreign Travel Costs	[ ]
	Total Travel Cost	4,880.00

E. Participant/Trainee Support Costs

Funds Requested (\$)

1.	Tuition/Fees/Health Insurance	[ ]
2.	Stipends	[ ]
3.	Travel	[ ]
4.	Subsistence	[ ]
5.	Other [ ]	[ ]
[ ]	Number of Participants/Trainees	Total Participant/Trainee Support Costs [ ]

RESEARCH & RELATED Budget {C-E} (Funds Requested)

Close Form

RESEARCH & RELATED BUDGET - SECTION F-K, BUDGET PERIOD 1

\* ORGANIZATIONAL DUNS: [ ]

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization: Green Giant Tribal College

\* Start Date: 09/01/2012 \* End Date: 08/31/2013 Budget Period 1

F. Other Direct Costs	Funds Requested (\$)
1. Materials and Supplies	10,240.00
2. Publication Costs	
3. Consultant Services	
4. ADP/Computer Services	
5. Subawards/Consortium/Contractual Costs	
6. Equipment or Facility Rental/User Fees	
7. Alterations and Renovations	
8. [ ]	
9. [ ]	
10. [ ]	
<b>Total Other Direct Costs</b>	10,240.00

G. Direct Costs	Funds Requested (\$)
<b>Total Direct Costs (A thru F)</b>	22,620.00

H. Indirect Costs	Indirect Cost Type	Indirect Cost Rate (%)	Indirect Cost Base (\$)	* Funds Requested (\$)
1.	[ ]	[ ]	[ ]	[ ]
2.	[ ]	[ ]	[ ]	[ ]
3.	[ ]	[ ]	[ ]	[ ]
4.	[ ]	[ ]	[ ]	[ ]
<b>Total Indirect Costs</b>				[ ]

Cognizant Federal Agency [ ]  
(Agency Name, POC Name, and POC Phone Number)

I. Total Direct and Indirect Costs	Funds Requested (\$)
<b>Total Direct and Indirect Institutional Costs (G + H)</b>	22,620.00

J. Fee	Funds Requested (\$)
	[ ]

K. \* Budget Justification Budget Justification student.docx  
(Only attach one file.)

Add Attachment

Delete Attachment

View Attachment



Close Form

RESEARCH & RELATED BUDGET - SECTION C, D, & E, BUDGET PERIOD 2

\* ORGANIZATIONAL DUNS: [ ]

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization: Green Giant Tribal College

\* Start Date: 09/01/2013 \* End Date: 08/31/2014 Budget Period 2

C. Equipment Description

List items and dollar amount for each item exceeding \$5,000

	Equipment item	* Funds Requested (\$)
1.	[ ]	[ ]
2.	[ ]	[ ]
3.	[ ]	[ ]
4.	[ ]	[ ]
5.	[ ]	[ ]
6.	[ ]	[ ]
7.	[ ]	[ ]
8.	[ ]	[ ]
9.	[ ]	[ ]
10.	[ ]	[ ]
11.	Total funds requested for all equipment listed in the attached file	[ ]
	Total Equipment	[ ]

Additional Equipment: [ ]

Add Attachment

Delete Attachment

View Attachment

D. Travel

Funds Requested (\$)

1.	Domestic Travel Costs ( Incl. Canada, Mexico and U.S. Possessions)	4,880.00
2.	Foreign Travel Costs	[ ]
	Total Travel Cost	4,880.00

E. Participant/Trainee Support Costs

Funds Requested (\$)

1.	Tuition/Fees/Health Insurance	[ ]
2.	Stipends	[ ]
3.	Travel	[ ]
4.	Subsistence	[ ]
5.	Other [ ]	[ ]
[ ]	Number of Participants/Trainees	Total Participant/Trainee Support Costs [ ]

RESEARCH & RELATED Budget {C-E} (Funds Requested)

Close Form

RESEARCH & RELATED BUDGET - SECTION F-K, BUDGET PERIOD 2

\* ORGANIZATIONAL DUNS: [ ]

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization: Green Giant Tribal College

\* Start Date: 09/01/2013 \* End Date: 08/31/2014 Budget Period 2

F. Other Direct Costs	Funds Requested (\$)
1. Materials and Supplies	[ ]
2. Publication Costs	[ ]
3. Consultant Services	[ ]
4. ADP/Computer Services	[ ]
5. Subawards/Consortium/Contractual Costs	[ ]
6. Equipment or Facility Rental/User Fees	[ ]
7. Alterations and Renovations	[ ]
8. [ ]	[ ]
9. [ ]	[ ]
10. [ ]	[ ]
<b>Total Other Direct Costs</b>	[ ]

G. Direct Costs	Funds Requested (\$)
<b>Total Direct Costs (A thru F)</b>	12,380.00

H. Indirect Costs	Indirect Cost Type	Indirect Cost Rate (%)	Indirect Cost Base (\$)	* Funds Requested (\$)
1.	[ ]	[ ]	[ ]	[ ]
2.	[ ]	[ ]	[ ]	[ ]
3.	[ ]	[ ]	[ ]	[ ]
4.	[ ]	[ ]	[ ]	[ ]
<b>Total Indirect Costs</b>				[ ]

Cognizant Federal Agency [ ]  
(Agency Name, POC Name, and POC Phone Number)

I. Total Direct and Indirect Costs	Funds Requested (\$)
<b>Total Direct and Indirect Institutional Costs (G + H)</b>	12,380.00

J. Fee	Funds Requested (\$)
	[ ]

K. \* Budget Justification Budget Justification student.docx [Add Attachment] [Delete Attachment] [View Attachment]  
(Only attach one file.)

## RESEARCH & RELATED BUDGET - Cumulative Budget

		Totals (\$)
<b>Section A, Senior/Key Person</b>		15,000.00
<b>Section B, Other Personnel</b>		
Total Number Other Personnel		
<b>Total Salary, Wages and Fringe Benefits (A+B)</b>		15,000.00
<b>Section C, Equipment</b>		
<b>Section D, Travel</b>		9,760.00
1. Domestic	9,760.00	
2. Foreign		
<b>Section E, Participant/Trainee Support Costs</b>		
1. Tuition/Fees/Health Insurance		
2. Stipends		
3. Travel		
4. Subsistence		
5. Other		
6. Number of Participants/Trainees		
<b>Section F, Other Direct Costs</b>		10,240.00
1. Materials and Supplies	10,240.00	
2. Publication Costs		
3. Consultant Services		
4. ADP/Computer Services		
5. Subawards/Consortium/Contractual Costs		
6. Equipment or Facility Rental/User Fees		
7. Alterations and Renovations		
8. Other 1		
9. Other 2		
10. Other 3		
<b>Section G, Direct Costs (A thru F)</b>		35,000.00
<b>Section H, Indirect Costs</b>		
<b>Section I, Total Direct and Indirect Costs (G + H)</b>		35,000.00
<b>Section J, Fee</b>		

Budget Justification

Total Award: \$50,000

Total for Green Giant Tribal College \$35,000 (70 percent)

Total for Oregon State University \$15,000 (30 percent)

(Oregon State University money itemized in a separate sub-award budget)

Expense	Description	Amount
<b>Salary for project director</b>		
1 position	Compensation for after hours working with students on research projects in addition to faculty teaching assignment	\$7,500 for year for 2 years totaling \$15,000
<b>Equipment for student research projects</b>		
4- microscopes EnvioTechno Instruments Digital Compound Microscopes, EnvioTechno Dxx.xxx.xxx	This particular instrument allows microscope images to be digitally shared across distance learning devices to be viewed by classrooms at other institutions. To provide distance education and sharing of results. Will also allow visiting scholar to review student research on campus of Oregon State University. Will allow college after project to continue science with Oregon State and enhance Green Colleges Scientific facilities	\$8800
4 Water pH meter	To conduct student research on water quality and aquatic health in Blue Stream	\$500
4 Water nitrite test kits	To conduct student research on water quality and aquatic health in Blue Stream	\$60
4-Phosphate test kits	To conduct student research on water quality and aquatic health in Blue Stream	\$52
4 Ammonia test kits	To conduct student research on water quality and aquatic health in Blue Stream	\$48
4-Hester- Dendy Multiple Plate Samplers	To conduct student research on sediment levels as they relate to aquatic health in Blue Stream	\$120
1 sediment sampler	To conduct student research on sediment levels as they relate to aquatic health in Blue Stream	\$439
Continued on page 2		

With the microscopes you might need to provide evidence of how you found the best bargain and a catalogue of product specifications. Putting it in now means you won't have to find it later.

Continued from page 1		
Extension Rod for Sediment sampler	To conduct student research on sediment levels as they relate to aquatic health in Blue Stream	\$59
6 grabNalgene Grab Sampler	To conduct student research on sediment levels as they relate to aquatic health in Blue Stream	\$162
<b>Travel Expenses</b>		
Student Travel Stipend	Transportation costs for students to travel to assigned testing sites which may be 2-3 hours apart	\$610 per student per year for 4 students, totaling \$9,760 for the life of the grant



**RESEARCH & RELATED BUDGET - SECTION C, D, & E, BUDGET PERIOD 1**

\* ORGANIZATIONAL DUNS:

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization:

\* Start Date:  \* End Date:  Budget Period 1

**C. Equipment Description**

List items and dollar amount for each item exceeding \$5,000

	Equipment item	* Funds Requested (\$)
1.	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>
4.	<input type="text"/>	<input type="text"/>
5.	<input type="text"/>	<input type="text"/>
6.	<input type="text"/>	<input type="text"/>
7.	<input type="text"/>	<input type="text"/>
8.	<input type="text"/>	<input type="text"/>
9.	<input type="text"/>	<input type="text"/>
10.	<input type="text"/>	<input type="text"/>
11.	<b>Total funds requested for all equipment listed in the attached file</b>	<input type="text"/>
	<b>Total Equipment</b>	<input type="text"/>

Additional Equipment:

**D. Travel**

**Funds Requested (\$)**

1.	Domestic Travel Costs ( Incl. Canada, Mexico and U.S. Possessions)	<input type="text"/>
2.	Foreign Travel Costs	<input type="text"/>
	<b>Total Travel Cost</b>	<input type="text"/>

**E. Participant/Trainee Support Costs**

**Funds Requested (\$)**

1.	Tuition/Fees/Health Insurance	<input type="text"/>
2.	Stipends	<input type="text"/>
3.	Travel	<input type="text"/>
4.	Subsistence	<input type="text"/>
5.	Other <input type="text"/>	<input type="text"/>
<input type="text"/>	<b>Number of Participants/Trainees</b>	<input type="text"/>
	<b>Total Participant/Trainee Support Costs</b>	<input type="text"/>

RESEARCH & RELATED Budget {C-E} (Funds Requested)

**RESEARCH & RELATED BUDGET - SECTION F-K, BUDGET PERIOD 1**

\* ORGANIZATIONAL DUNS:

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization:

\* Start Date:  \* End Date:  Budget Period 1

F. Other Direct Costs	Funds Requested (\$)
1. Materials and Supplies	<input type="text"/>
2. Publication Costs	<input type="text"/>
3. Consultant Services	<input type="text"/>
4. ADP/Computer Services	<input type="text"/>
5. Subawards/Consortium/Contractual Costs	<input type="text"/>
6. Equipment or Facility Rental/User Fees	<input type="text"/>
7. Alterations and Renovations	<input type="text"/>
8. <input type="text"/>	<input type="text"/>
9. <input type="text"/>	<input type="text"/>
10. <input type="text"/>	<input type="text"/>
<b>Total Other Direct Costs</b>	<input type="text"/>

**G. Direct Costs** **Funds Requested (\$)**  
**Total Direct Costs (A thru F)**

H. Indirect Costs			
Indirect Cost Type	Indirect Cost Rate (%)	Indirect Cost Base (\$)	* Funds Requested (\$)
1. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Total Indirect Costs</b>			<input type="text"/>

**Cognizant Federal Agency**   
(Agency Name, POC Name, and POC Phone Number)

**I. Total Direct and Indirect Costs** **Funds Requested (\$)**  
**Total Direct and Indirect Institutional Costs (G + H)**

**J. Fee** **Funds Requested (\$)**

**K. \* Budget Justification**      
(Only attach one file.)



**RESEARCH & RELATED BUDGET - SECTION C, D, & E, BUDGET PERIOD 2**

\* ORGANIZATIONAL DUNS:

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization:

\* Start Date:  \* End Date:  Budget Period 2

**C. Equipment Description**

List items and dollar amount for each item exceeding \$5,000

	Equipment item	* Funds Requested (\$)
1.	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>
4.	<input type="text"/>	<input type="text"/>
5.	<input type="text"/>	<input type="text"/>
6.	<input type="text"/>	<input type="text"/>
7.	<input type="text"/>	<input type="text"/>
8.	<input type="text"/>	<input type="text"/>
9.	<input type="text"/>	<input type="text"/>
10.	<input type="text"/>	<input type="text"/>
11.	<b>Total funds requested for all equipment listed in the attached file</b>	<input type="text"/>
	<b>Total Equipment</b>	<input type="text"/>

Additional Equipment:

**D. Travel**

**Funds Requested (\$)**

1.	Domestic Travel Costs ( Incl. Canada, Mexico and U.S. Possessions)	<input type="text"/>
2.	Foreign Travel Costs	<input type="text"/>
	<b>Total Travel Cost</b>	<input type="text"/>

**E. Participant/Trainee Support Costs**

**Funds Requested (\$)**

1.	Tuition/Fees/Health Insurance	<input type="text"/>
2.	Stipends	<input type="text"/>
3.	Travel	<input type="text"/>
4.	Subsistence	<input type="text"/>
5.	Other <input type="text"/>	<input type="text"/>
<input type="text"/>	<b>Number of Participants/Trainees</b>	<input type="text"/>
	<b>Total Participant/Trainee Support Costs</b>	<input type="text"/>

RESEARCH & RELATED Budget {C-E} (Funds Requested)

**RESEARCH & RELATED BUDGET - SECTION F-K, BUDGET PERIOD 2**

\* ORGANIZATIONAL DUNS:

\* Budget Type:  Project  Subaward/Consortium

Enter name of Organization:

\* Start Date:  \* End Date:  Budget Period 2

F. Other Direct Costs	Funds Requested (\$)
1. Materials and Supplies	<input type="text"/>
2. Publication Costs	<input type="text"/>
3. Consultant Services	<input type="text"/>
4. ADP/Computer Services	<input type="text"/>
5. Subawards/Consortium/Contractual Costs	<input type="text"/>
6. Equipment or Facility Rental/User Fees	<input type="text"/>
7. Alterations and Renovations	<input type="text"/>
8. <input type="text"/>	<input type="text"/>
9. <input type="text"/>	<input type="text"/>
10. <input type="text"/>	<input type="text"/>
<b>Total Other Direct Costs</b>	<input type="text"/>

G. Direct Costs	Funds Requested (\$)
<b>Total Direct Costs (A thru F)</b>	<input type="text" value="7,500.00"/>

H. Indirect Costs			
Indirect Cost Type	Indirect Cost Rate (%)	Indirect Cost Base (\$)	* Funds Requested (\$)
1. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Total Indirect Costs</b>			<input type="text"/>

**Cognizant Federal Agency**   
(Agency Name, POC Name, and POC Phone Number)

I. Total Direct and Indirect Costs	Funds Requested (\$)
<b>Total Direct and Indirect Institutional Costs (G + H)</b>	<input type="text" value="7,500.00"/>

J. Fee	Funds Requested (\$)
	<input type="text"/>

**K. \* Budget Justification**      
(Only attach one file.)

## RESEARCH & RELATED BUDGET - Cumulative Budget

Totals (\$)

<b>Section A, Senior/Key Person</b>		<input type="text" value="15,000.00"/>
<b>Section B, Other Personnel</b>		<input type="text"/>
Total Number Other Personnel	<input type="text"/>	
<b>Total Salary, Wages and Fringe Benefits (A+B)</b>		<input type="text" value="15,000.00"/>
<b>Section C, Equipment</b>		<input type="text"/>
<b>Section D, Travel</b>		<input type="text"/>
1. Domestic	<input type="text"/>	
2. Foreign	<input type="text"/>	
<b>Section E, Participant/Trainee Support Costs</b>		
1. Tuition/Fees/Health Insurance		
2. Stipends		
3. Travel		
4. Subsistence		
5. Other		
6. Number of Participants/Trainees		
<b>Section F, Other Direct Costs</b>		
1. Materials and Supplies	<input type="text"/>	
2. Publication Costs	<input type="text"/>	
3. Consultant Services	<input type="text"/>	
4. ADP/Computer Services	<input type="text"/>	
5. Subawards/Consortium/Contractual Costs	<input type="text"/>	
6. Equipment or Facility Rental/User Fees	<input type="text"/>	
7. Alterations and Renovations	<input type="text"/>	
8. Other 1	<input type="text"/>	
9. Other 2	<input type="text"/>	
10. Other 3	<input type="text"/>	
<b>Section G, Direct Costs (A thru F)</b>		<input type="text" value="15,000.00"/>
<b>Section H, Indirect Costs</b>		<input type="text"/>
<b>Section I, Total Direct and Indirect Costs (G + H)</b>		<input type="text" value="15,000.00"/>
<b>Section J, Fee</b>		<input type="text"/>

Again, notice that Sonny Skaize, the co-PD is 30 percent of this grant. His main role is as a mentor and he's only teaching one class. He commutes to the college on a part-time bases to conduct the lab portion of the class and does his class lecture through distance education. Most of the funding is to upgrade student research facilities and allow them to have experience of conducting an experiment, analyzing the results and explaining the data to others.

**Budget Narrative and cooperative agreement for Tribal College Research Project  
Sonny Skaize, Ph.D. Candidate 2014, Science Education  
Oregon State University**

Fish Kills in the Blue Stream: A Student-Led Environmental Inquiry

Project contribution (budget statement and work agreement)

I, Sonny Skaize, will be participating as a visiting scholar at Green Giant Tribal College from 2012 to 2014. As a visiting scholar, I will teach an introductory course in aquatic ecology and serve as a research advisor for 8 Tribal college students (4 annually) who are preparing their capstone project for graduation. I will be helping them plan their investigation design, trouble-shoot problems in conduct of their research, assisting them in interpreting results and advise them communicating their findings in a poster session. I will be supported in that effort by Owen Knone, Green Giant Tribal College science faculty.

My graduate grant and Oregon State University are covering the majority of my expenses as I will count this experience toward my total teaching hours for graduation. I will be compensated \$7,500 annually for my time and expertise, and I agree to this compensation and to completing the work outlined in this proposal.

Total compensation for Sonny Skaize:

\$7,500 for 2012 to 2013 for duties outlined above

\$7,500 for 2013-2014 for duties outlined above

Total compensation for grant: \$15,000

In this instance, because the amount is small the budget justification and cooperative agreement are combined.

*Sonny Skaize.*

December 2, 2011

*Owen Knone*

December 2, 2011

*Hope Enwane.*

Dean of Students, Science Education, Oregon State University

December 2, 2011

*P. Letice*

President, Green Giant Tribal College  
December 3, 2011

## **Stakeholder Plan**

Prior to this application the project directors held a town meeting in conjunction with Tribal Government which was attended by community members, students and the Reservation's Farming Cooperative. A total of 1,000 citizens attended the meeting at the Town Hall of the Green Reservation in Zigzag, Oregon.

The result of that meeting was that farmers expressed the need to maximize soil fertility, but were open to new lower impact strategies if research results suggested they were needed. Both farmers and fishing families agreed that tests should be done to find out whether farming was having an effect on water quality and aquatic life, and if so to what extent. Both groups have agreed to the concept of the research which was presented to them at a follow up meeting.

Throughout this project we will meet at least twice a year with the farmers and fishing families. Students will present their work. They and the project directors will answer questions. The project directors will listen to concerns voiced by the community, and adapt the project if community member suggestions have merit. In this way, farmers and community members will be kept apprised of progress, preliminary results and ultimate findings.

As results come in during the study, the project directors will offer suggestions on to address and resolve any issues if findings suggest an extreme impact from run-off. Announcements for meeting times and places will be in Reservation newsletters and on local radio stations. Upon completion of this project, the project directors will write a report, to be presented to the Tribal Government.

Students will also meet with the project directors weekly to discuss their challenges and suggestions for improving the project. The project directors will accompany students to test sites to monitor their progress in using field equipment and help them with any difficulties they are having in completing any part of their research tasks.

The project directors will also have private meetings with each other to discuss the feedback received from the community and the students to see if the project needs to be adapted in any way. They will also use this time to assess their working relationship and ensure that they are both meeting their expectations for this project to themselves, the students and the community.

**Green Reservation Tribal Government**

**Office of the Chief**

**To:** NIFA Grant Committee  
**From:** Albert Johnson  
**Date:** 12/27/06  
**Re:** Tribal College Research Grant for Student-Led Aquatic Research

**Message:**

I am writing in support of the Green Giant Tribal College's student led research project application for 2012 on the health of aquatic life as it relates to farming in and around our reservation. The stream and our farms are the Reservation's lifeblood and provide our food. The students, however, are our future.

As this project will build the capacity for our youth and will help us sustain both of our main food supplies, the Reservation will cover the tuition of all the students who participate in this project, provided they complete their research.

I think our willingness to contribute Tribal funds is evidence of our full endorsement of this project. This letter is a further reflection of that support. We hope the committee will give this application and its merits fair and due consideration.

Regards,

*A. Johnson*

Albert Johnson  
Tribal Chief

Mark Medown

Accepted 12-15-2011

Capstone Competition Essay

My name is Mark Medown and I would like to participate in the Green Giant Tribal College Research Project as a student investigator. I have a 3.5 overall grade point average, and plan to attend Oregon State University in the Fall of 2014.

My favorite subject in college has been natural resource conservation and my average in my science classes is a perfect 4.0. I am excited about the opportunity to learn to use the kind of scientific instrumentation that I will be using during my advanced degree studies at Oregon State.

As a son of a farming family who also rely on fish for a food source from the Blue Stream I concerned about the issue run-off and understand that this is a critical matter not only to our Reservation community, but to agriculture throughout the United States.

If I am selected for this capstone project I will be fully able to commit the time required for this project and will be able to secure transportation to draw samples at the various sites required by the project. I will also make time in my schedule to meet with my project advisor and review my findings.

About the student essays--do you have to have committed students before you write the grant? **Absolutely not.** If you don't have the students yet, however, you will need to make a compelling case that you will be able to recruit them. You don't want to start a project like this and not have any students show up. You could offer a survey showing student interest, a focus group report that shows student involvement in planning (also a great stakeholder input) or describe how you will make students aware of this project. Preferably, you would have at least two of these "proof of interest" items if you didn't have a student letter. The more convincing evidence you can give about student enthusiasm about this project the better your application will be. Also, student buy-in from the start is a great way to make sure the project succeeds.

Delta Dawn

Accepted 12-15-2011

Capstone Competition Essay

My name is Delta Dawn and I would like to participate in the *Green Giant Tribal College Research Project* as a student investigator. I have a 2.9 overall grade point average, and plan to graduate from *Green Giant Tribal College* in 2014.

I enjoy my science classes, but I also enjoy being outdoors. I feel I learn things more effectively when I'm actually working with my hands, and seeing the results of my work. I'm hoping this project will build my skills and help me improve my academic abilities by make the science come alive for me. I know I will do a good job if I am selected for this project.

I want to protect the *Blue Stream*, as my family has relied on it for generations.

If I am selected for this capstone project I will be fully able to commit the time required for this project and will be able to secure transportation through my family to draw samples at the various sites required by the project. I have a back-up plan if my original transportation becomes unavailable. I will also make time in my schedule to meet with my project advisor and review my findings.

Another thing about student projects. We encourage you to include both at-risk students and those considering an advanced degree program beyond your institution.

An Example of a table you could use to answer questions in the RFA. Answering the questions is a must--the table is optional.

Complete this form, print as a PDF and submit with your application under field 12 – additional attachments. You may also use the PDF provided in your e-mail invitation to apply

<b>Research Capacity Status Report</b>			
Have you received a 1994 Research Grant before?		Yes	No X
Do you have other research funding?	If Yes, please provide description		X
Does your institution regularly conduct experimental research?	If Yes, please provide description		
Have you ever been a sub-award recipient on a research project?	If Yes, please provide description Oregon State University's NFS grant on water quality	X	
Do you have an existing 1890 or 1862 research partnership ?	If Yes, is it in your state ? Oregon State University	X	
Does your institution have an internal IRB or mechanism for Getting IRB approval ?	If Yes, what is the IRB mechanism ? ___ 1994 ___x__1862 ___ Tribal		
Has your Institution published a research article in the past 3 years ?	Publication ? Journal of Science Education 2011		x
<b>Does your college have the following laboratory instruments?</b>			
	Yes	No	Provide description if applicable
Scales/microscope/glassware/chemical stockroom	x		Basic chemical stockroom and glassware. Microscope is used and out of date and unreliable
Other basic instruments ?		x	None
Broadband internet ?	x		Basic broadband through Teytell and support from Oregon State University
Greenhouse ?		x	
Active Test Plots ?	x		One
More Advanced Instrumentation:			
Incubator / Gas Chromatograph / Mass Spectrometer / other ?		x	