

**PROFESSIONAL DEVELOPMENT TRAINING IN THE
NORTH CENTRAL REGION**

Chairperson: Carole Engle, Engle-Stone Aquatic\$ LLC
Industry Advisory Council Liaison: Bill West
Extension Liaison: Chris Weeks
Funding Request: \$70,000
Duration: 2 years (September 1, 2016 – August 31, 2018)

Objectives:

1. Assess the status of aquaculture associations in the NCR.
2. Develop strategies to enhance association leadership and participation (e.g., workshops, mentoring, messaging, communication, member satisfaction, improve communication, incentivizing member participation).
3. Conduct training programs for individuals from state and multistate association(s) that support regional aquaculture development.
4. Prepare educational materials which facilitate the association development processes.

Deliverables

1. Aquaculture association leadership training opportunities for all NCR states.
2. Develop educational materials to be used as a template for future participation of other states.
3. Strategies which enhance association leadership and participation.
4. Educational materials which facilitate the association development processes

Proposed Budgets:

Institution	Principal Investigators	Objectives	Year 1	Year 2	Total
National Aquaculture Association/Engle-Stone Aquatic\$LLC	Paul Zajicek, Dr. Carole Engle	2,3,4	\$32,500	\$31,500	\$64,000
Michigan State University	Dr. Chris Weeks	3	\$1,750	\$1,250	\$3,000
University of Minnesota	Dr. Nicholas Phelps	3	\$1,750	\$1,250	\$3,000
Totals			\$36,000	\$34,000	\$70,000

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PROJECT SUMMARY

Strong industry associations provide support for industries to grow and develop. In the North Central Region, only four states have active state aquaculture associations. Of the remaining states, four have associations that meet infrequently or have minimal activity, and four others no longer have active associations. This decline coincided with administrative decisions to not fill vacancies when extension specialists retired or re-located. Strengthening state aquaculture associations would contribute to revitalization of the aquaculture industries in these states.

Effective leadership skills are essential for associations to flourish, but are not inborn. Thus, development of leadership skills in the North Central Region is essential to revitalize state aquaculture associations that support growth of aquaculture.

This project will design and implement a leadership development and training program. The immediate impact will be on the individual participants who will learn to prioritize projects and engage members in the association in efforts to solve industry issues. Other producers are likelier to join and become active when the association works on topics of perceived value to their farms. The deliverables from this project will provide a framework for extension specialists in the region to continue or expand leadership development and training in the region to strengthen state aquaculture associations which, in turn, will support a viable aquaculture industry.

JUSTIFICATION

There is ample evidence that strong associations contribute to strong industry development. Without strong state and federal aquaculture associations, the voice of the aquaculture industry is not heard clearly enough to be effective. Policies that are enacted without input and discussion with the aquaculture industry often have unintended negative consequences to the industry and, even more regrettably, often do not result in the benefits to society that were initially intended. There is strength in numbers, and associations will have a stronger voice than will individual businesses. However, adequate participation and leadership from the aquaculture industry is necessary to engage in these discussions. Effective leadership is essential for associations to develop the strength necessary to sustain growing industries.

This project will be applied in the North Central Region. Participants involved will be selected from the following states: Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. Budgetary limitations preclude including more states in this project. However, the benefits from the project will extend beyond the individual participants to their respective aquaculture industries through educational and training materials that result from the project. These project deliverables will provide the basis for extension of the methods developed in this project to the other states in the North Central Region. The final report for the project will also develop recommendations for follow-up steps that would provide on-going support throughout the region.

This project represents a collaboration among the National Aquaculture Association, Engle- Stone Aquatic\$ LLC, Michigan State University, and the University of Minnesota. The National Aquaculture Association and Engle- Stone Aquatic\$ LLC bring skills in association building, strengthening, and management, leadership development, and training. The two universities involved contribute their extension expertise and skills as well as their familiarity with the farmers in the region.

This project addresses Goal #2 of the North Central Regional Aquaculture Center's Strategic Plan, "to build a strong aquaculture community in the North Central states," specifically Objective B, to "Initiate the NCRAC leadership training program to build capacity within the North Central states' aquaculture community to more effectively voice the community's concerns, funding opportunities, and increase networking."

RELATED CURRENT AND PREVIOUS WORK

A survey conducted by the Office of the Director of the North Central Aquaculture Center showed that only one-third of the states in the North Central Region have associations that meet or hold functions on a regular basis (Fig. 1). Yet research has shown that associations contribute to industry growth through increased entrepreneurial activity (Techchandani 2014). This positive effect of associations on the growth of industries occurs in several fashions. Firstly, associations provide an important networking function by organizing conferences, workshops, and other meetings that offer opportunities for interaction among their membership (Greenwood et al. 2002). Centers of expertise can emerge through frequent and effective interactions among the membership in an association (Marshall and Standifrid 2005). Moreover, industry viability can be enhanced when associations engage their elected officials (Knoke 1990) related to policy development and amendment to provide for a framework conducive to new industry growth.

Few formal studies have been done on effects of aquaculture associations on industry growth and development. In a recent study, Prokopovych (2015) found that associations of shellfish growers in the Northeast area of the United States created value and promoted cooperation among shellfish growers in the region. In the Prokopovych (2015) study, shellfish associations on the East Coast were found to organize workshops, conferences, identify research needs, educate elected officials and the general public on their industry and disseminate policy, industry news, and information to their membership. Shellfish associations disseminated information on shellfish poisonings for specific locations, prevention of spread of invasive species that predate on shellfish, and on research updates.

Prokopovych (2015) asked the shellfish respondents in the sampling frame to respond to questions about the relative importance of a variety of different types of association activities. Ninety percent of industry respondents rated receiving information on issues such as shellfish diseases and invading species that predate on shellfish as “important” or “extremely important.” Seventy-five percent of respondents rated information on products and suppliers at this same level.

However, there are quite a few aquaculture associations that provide a wide variety of services to their members. Engle-Stone AquaticS LLC completed a national survey across the United States for the National Aquaculture Association. This survey provided information on how respondents rate the importance of association functions such as networking, events such as conferences and meetings, professional development, learning best practices, industry news, and supporting the organization's mission by giving voice to aquaculture, and public relations. It also asked respondents to rate the value of membership in each association that he/she belongs to as well as to rate the value of a series of individual member benefits such as: media alerts, conferences, webinars, newsletters, representation at trade shows, food shows, engagement with regulatory agencies, and other benefits.

There was very little participation in the survey (1% of respondents) from the North Central Region. Thus, the national survey results do not represent the North Central Region well enough to chart out a plan for stimulating renewed support for aquaculture associations in the North Central Region. The authors of this proposal intend to work with the Office of the Director of the North Central Aquaculture Center to gather additional information more specific to the North Central Region on those types of benefits likeliest to both attract and retain membership and involvement in state-wide aquaculture associations.

The development of leadership skills is an essential part of creating and sustaining effective associations. Modeled after other successful farm leadership development programs, The Catfish Farmers of America has had a Young Farmers Program in place for many years. It credits this program for improved membership retention and for increased engagement with younger farmers. The Young Catfish Farmer Program focuses on training related to research results by visits to catfish research facilities, enhancing peer-to-peer networking by field visits to a variety of catfish farms throughout the south, and by meetings with leaders of the aquaculture and broader agricultural industries in the southern region.

The North Central Region does not have a leadership development and training program for aquaculture producers. This project proposes to develop such a program as well as to develop a set of educational deliverables that will then be available to continue the program and ensure that all states in the region will be able to benefit from the results of this project.

STATEMENT OF DUPLICATION OF RESEARCH

The USDA Current Research Information System (CRIS or REEport) was accessed to review any related or relevant research and that the proposed work is original research and does not duplicate any **previously funded projects in CRIS. The following NOAA databases of previously funded projects were also accessed to ensure that the proposed work does not duplicate previous research:** 1) National Sea Grant Office Funding Page (<http://www.seagrant.noaa.gov/funding/rfp.html>); 2) website of state Sea Grant Program (<http://www.seagrant.noaa.gov/other/programsdirectors.html>); and 3) NOAA Office of Aquaculture Funding Opportunities Page (<http://www.nmfs.noaa.gov/aquaculture/funding/funding.html>).

ANTICIPATED BENEFITS

The leadership training program to be developed and implemented in this project is expected to increase knowledge among industry participants in skills essential to effective leadership that include: 1) how to effectively engage association members in association initiatives and 2) how to develop effective media relationships (See Logic Model, p.3). As a result of these short-term knowledge gains, this project is expected to result in changed behaviors in the medium-term. These would include: 1) increased activities of state aquaculture associations; 2) increased membership in state aquaculture associations; and 3) increased positive media related to aquaculture in the North Central Region. The individual participants will be expected to serve as liaisons to continue to work towards enhancing state aquaculture associations and growth of aquaculture in the region.

The leadership development and training program will serve as a prototype model. The educational deliverables from this project will be made available to both industry and extension aquaculture personnel in the region through the North Central Aquaculture Center. These deliverables (including training packets, the recorded webinar, and fact sheet) will provide the basis for continuing the leadership training and development by extending it to include other participants and other states in the region. This model will be expected to be used to continue building strong state aquaculture associations.

OBJECTIVES

1. Assess the status of aquaculture associations in the NCR.
2. Develop strategies to enhance association leadership and participation (e.g., workshops, mentoring, messaging, communication, member satisfaction, improve communication, incentivizing member participation).
3. Conduct training programs for individuals from state and multistate association(s) that support regional aquaculture development.
4. Prepare educational materials which facilitate the association development processes.

DELIVERABLES

1. Aquaculture association leadership training opportunities for NCR states, based on willingness to participate. This deliverable was modified to reflect budgetary constraints.
2. Develop educational materials to be used as a template for future participation of other states.
3. Strategies which enhance association leadership and participation.

4. Educational materials which facilitate the association development processes.

PROCEDURES

Objective 1. Assess the status of aquaculture associations in the NCR.

Objective #1 will be addressed in direct consultation with the NCRAC Director's office and the Regional Aquaculture Extension Specialist. Additionally, we will seek additional funding if available to conduct a state association assessment survey.

Objective 2. Develop strategies to enhance association leadership and participation (e.g., workshops, mentoring, messaging, communication, member satisfaction, improve communication, incentivizing member participation).

This project will design and implement a leadership development and training program for the North Central Region (NCR). Primary responsibility for the design of the program will be with Engle-Stone Aquatic\$ LLC, with support from the National Aquaculture Association. Leadership skills are not inborn, but can be developed through interactive training sessions and workshops. Some key components of leadership training include the development of strategic thinking skills and the ability to engage others (association members and the media) to address challenges and solve problems effectively. Most leaders must learn on the job, after being elected to a leadership position in an association. The leadership program to be implemented in this project will bring a group of fish farmers together periodically to work on specific leadership skills. Each participant will identify a priority initiative for their state. Following each workshop, each participant will work on an assignment related to the priority initiative identified for their state. Mentoring will be provided by the project personnel to assist and guide project participants as they work to address the issue or problem selected as a priority for their state. At each subsequent workshop, participants will report on progress made. Their peers (other industry participants in the program) will provide feedback and critique the activities conducted, results, and provide suggestions based on their experience. The process will be repeated with each subsequent workshop, with new assignments that focus on practicing the new skills developed in each subsequent workshop. During the final workshop, participants will compare what they have achieved, what they have learned, and what the next steps will be to strengthen their state associations.

Objective 2 Expected outcomes: Aquaculture association leadership training opportunities for NCR states, based on willingness to participate. In addition, the educational materials developed will provide a template for future participation of other states. Addresses Project Deliverable #2.

Objective 3. Conduct training programs for individuals from state and multistate association(s) that support regional aquaculture development.

Participant Selection

Extension personnel, principally the project principal investigators from Michigan State University and the University of Minnesota, with support from the NCR Director's office and state aquaculture associations, will be asked to assist with nominations of up to four individuals (two to be funded with project funds and the others to be funded by their respective state aquaculture association) from each of the following states: Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. These states were selected by choosing states with the greatest number of aquaculture producers listed in the 2013 Census of Aquaculture (Table 1) (USDA, 2014) and state association activity level (Figure 1). Budget availability restricted the number of states included in the project. The extension personnel who will nominate participants will be asked to consider including both an experienced, senior producer as well as a newer farmer with less leadership experience. If there is no response or only one individual is identified in a given state, another state/individual will be substituted to fill the slots. However, once the program starts, it will not be productive to add new people after the first workshop. The leadership development and training workshops are cumulative and new individuals will not be able to catch up if they miss the first workshop.

Expectations for Participants

Prospective participants will be asked to commit to attending both workshops and to devote the time required to complete a series of assignments before and in-between the workshops to be held. Upon selection, each participant will receive a packet of information that will include: 1) schedule of the workshops; 2) expectations for participation; 3) instructions related to travel reimbursement to participate in the workshops; and 4) instructions for the introductory webinar that will introduce participants to the first assignment.

Each participant will be expected to engage in a priority-setting assignment prior to the first workshop. The National Aquaculture Association will host a national webinar that focuses on moving organizations forward through engagement with members to establish priority goals for their association. The webinar will provide background information on ways to gather input from industry colleagues and project participants will be expected to participate in the webinar. Results of surveys conducted nationally and regionally on priority issues for their states and region will also be provided to project participants as background information. A summary of key findings from the national Engle-Stone Aquatic\$ survey will be made available to project participants. Based on the input gathered from farmers in their respective states, each participant will identify a challenge faced by their industry that they will work on throughout the leadership development program. The challenge can be large or small, but it should be one relevant to aquaculture producers in their state.

Workshops

Primary leadership for organizing the workshops will lie with Engle-Stone Aquatic\$ LLC, with support from the National Aquaculture Association. Each workshop will be divided into three sessions. Participants will arrive the morning of the first day. In the afternoon, speakers will present information on the workshop theme and provide relevant examples. The dinner that evening will be a working dinner following which the producers will be divided into groups for a series of role playing exercises that will give them the opportunity to practice skills related to the workshop presentations from the afternoon session. The following morning will be devoted to development of each individual's plans to address the challenge that they have identified as their project. Feedback will be provided by their peers (other industry participants) and by workshop organizers and presenters. Plans for the next workshop will be discussed and details of the next assignment presented.

The themes of the two workshops will be as follows:

Workshop 1: Media Relations

Workshop 2: Engaging your Membership

The expected outcomes are: By the end of the two workshops, participants will have developed a plan to conduct training programs for individuals from state and multistate association(s) that support regional aquaculture development. These plans can be utilized as models for development of other NCR associations. The plans will include strategies that enhance association leadership and participation. Thus, Objective 3 will address Project Deliverables #2 and #3.

Objective 4. Prepare educational materials which facilitate the association development processes.

Primary responsibility for preparation of educational materials as project deliverables lies with Engle-Stone Aquatic\$ LLC, with support of the project investigators from Michigan State University and the University of Minnesota.

Educational materials to be developed in the project will include: 1) national webinar hosted by the National Aquaculture Association; 2) final report that provides details of the leadership development and training activities conducted along with participant evaluations; and 3) a fact sheet that outlines the process of how to design and implement leadership development and training programs to other states; and 4) packets of information for each workshop conducted (Media Relations and Engaging Membership).

Thus, Objective 4 addresses Project Deliverables #4.

LOGIC MODEL

Professional Development Training in the North Central Region

Situation: States with strong leadership and associations provide valuable support to members and can respond rapidly to emerging issues, resulting in more vibrant industries. However, many state aquaculture associations in the North Central Region are only partially active with poorly defined leadership.

Goal: Establish strong and vibrant state aquaculture associations through effective leadership and training programs.

Objective: To development and implement a leadership development and training program for aquaculture producers in the North Central Region.

Inputs	Outputs		Outcomes – Impact		
	Activities	Deliverables	Knowledge gain	Behavior change	Conditions
Resource personnel skilled in association management	Workshop on media relations	Packet of training materials on media relations	How to develop effective media relationships	Increased positive media related to aquaculture in NCR	Dynamic, active state aquaculture associations
Resource personnel skilled in association management	Workshop on engaging association members	Packet of training materials on engaging association members	How to effectively engage association members in association initiatives	Increased membership in state aquaculture associations	More favorable state policies that affect aquaculture
Aquaculture extension personnel	Mentoring	1) Fact sheet that outlines the process of developing and implementing leadership development and training; 2) Final report; 3) National webinar.	Process of leadership development and modules for leadership training	Increased activities of state aquaculture associations	More favorable public opinion toward aquaculture

FACILITIES

This project does not require brick and mortar facilities. Computers already available by the NAA, Engle-Stone Aquatic\$ LLC, University of Minnesota, and Michigan State University will be made available for the project. The workshop sessions will require an appropriate venue that will be arranged in consultation with local industry or Extension personnel in each state. Meeting sites will be arranged through Extension and industry collaborators at sites that will be provided at no cost to the project.

Project Follow-up

The benefits of the leadership training developed in this project will be strengthened if follow up support is provided in the years after the NCRAC project has ended. The National Aquaculture Association is committed to providing additional follow up to the state aquaculture associations in the North Central Region. The National Aquaculture Association will disseminate project materials nationally through its established communication networks. It will also continue to engage with and provide on-going assistance to state aquaculture associations in the Region.

REFERENCES

- Greenwood, R., & Suddaby, R. (2006). Institutional entrepreneurship in mature fields: The Big Five accounting firms. *Academy of Management Journal*, 49(1): 27–48.
- Knoke, D. (1990). *Organizing for collective action: The political economies of associations*. New Brunswick, NJ: Aldine Transaction.
- Marshall, R. S., & Standifird, S. S. (2005). Organizational resource bundles and institutional change in the U.S. organic food and agricultural certification sector. *Organization & Environment*, 18(3): 265–286.
- Prokopovych, B. 2015. The emergence of new markets for environmental services: the role of U.S. shellfish industry associations. Master's thesis, University of Massachusetts, Amherst, Massachusetts.
- Teckchandani, A. (2014). Do membership associations affect entrepreneurship? The effect of type, composition, and engagement. *Nonprofit and Voluntary Sector Quarterly*, 43(2 Suppl): 84S–104S.
- USDA. 2014. 2013 Census of Aquaculture. National Agricultural Statistics Service, United States Department of Agriculture, Washington, D.C.

PROJECT LEADERS

One-page vitae are attached for all project participants. Dr. Carole Engle, of Engle-Stone Aquatic\$ LLC, will provide overall leadership for the project with support from Paul Zajicek, of the National Aquaculture Association. Dr. Chris Weeks, of Michigan State University, and Dr. Nicholas Phelps, of the University of Minnesota, will assist with participant selection, identification of appropriate workshop venues, and as mentors to project participants throughout the program.

State	Name/Institution	Area of Specialization
Michigan	Chris Weeks/Michigan State University	Aquaculture Engineering/Extension
Minnesota	Nicholas Phelps/University of Minnesota	Fish Disease/Extension
National Aquaculture Association	Dr. Carole Engle/Engle-Stone Aquatic\$ LLC Dr. Paul Zajicek/NAA	Aquaculture Economics

BUDGET

The proposed budget includes funding to cover up to \$637.50 of travel expenses per workshop for a minimum of 14 individuals, two each for the seven states selected for two workshops. However, depending upon funding from their state aquaculture associations, up to 4 participants per state will be accepted. It also includes funding for travel for additional speakers to be brought in from outside the region to talk about successes of other state associations. Other funding provides for materials, supplies, and overall project support. Salaries are necessary to compensate the time spent designing, organizing, delivering, mentoring, and evaluating the leadership development and training over the 2-year period of the project.

UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS National Aquaculture Association P.O. Box 12759 Tallahassee, FL 32317				USDA AWARD NO. _____ Year 1: Objectives 2, 3, 4					
				DURATION PROPOSED MONTHS: <u>12</u>	DURATION PROPOSED MONTHS: _____	Non-Federal Proposed Cost-Sharing/Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by CSREES (If Different)		
PROJECT DIRECTOR(S) Paul Zajicek Carole Engle				Funds Requested by Proposer	Funds Approved by CSREES (If different)				
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS							
1. No. Of Senior Personnel		Calendar	Academic	Summer					
a. _____ (Co)-PD(s)									
b. _____ Senior Associates									
No. of Other Personnel (Non-Faculty)									
_____ Research Associates/Postdoctorates									
b. _____ Other Professionals									
c. _____ Paraprofessionals									
d. _____ Graduate Students									
e. _____ Prebaccalaureate Students									
f. 1 Secretarial-Clerical 0.5 month					\$2,000				
g. _____ Technical, Shop and Other									
Total Salaries and Wages					\$2,000				
B. Fringe Benefits (If charged as Direct Costs)					0				
C. Total Salaries, Wages, and Fringe Benefits (A plus B)					\$2,000				
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)									
E. Materials and Supplies					\$500				
F. Travel					\$10,925				
G. Publication Costs/Page Charges									
H. Computer (ADPE) Costs									
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)									
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)					\$19,075				
K. Total Direct Costs (C through J)									
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)									
M. Total Direct and F&A/Indirect Costs (K plus L)									
N. Other									
O. Total Amount of This Request					\$32,500				
P. Carryover -- (If Applicable) Federal Funds: \$ _____ Non-Federal funds: \$ _____ Total \$ _____									
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)									
Cash (both Applicant and Third Party)									
- Non Cash Contributions (both Applicant and Third Party)									
NAME AND TITLE (Type or print)				SIGNATURE (required for revised budget only)			DATE		
Project Director									
Authorized Organizational Representative									
Signature (for optional use)									

Form CSREES-2004 (12/2000)

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS National Aquaculture Association P.O. Box 12759 Tallahassee, FL 32317				USDA AWARD NO.		Year 2: Objectives 2, 3, 4	
				DURATION PROPOSED MONTHS: <u>12</u> Funds Requested by Proposer	DURATION PROPOSED MONTHS: _____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost-Sharing/Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by CSREES (If Different)
PROJECT DIRECTOR(S) Paul Zajicek Carole Engle							
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS					
1. No. Of Senior Personnel		Calendar	Academic	Summer			
a. ___ (Co)-PD(s)							
b. ___ Senior Associates							
No. of Other Personnel (Non-Faculty)							
Research Associates/Postdoctorates							
b. ___ Other Professionals							
c. ___ Paraprofessionals							
d. ___ Graduate Students							
e. ___ Prebaccalaureate Students							
f. 1 Secretarial-Clerical					\$1,000		
g. ___ Technical, Shop and Other							
Total Salaries and Wages					\$1,000		
B. Fringe Benefits (If charged as Direct Costs)					0		
C. Total Salaries, Wages, and Fringe Benefits (A plus B)					\$1,000		
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies					\$500		
F. Travel					\$10,925		
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)					\$19,075		
K. Total Direct Costs (C through J)							
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L)							
N. Other							
O. Total Amount of This Request					\$31,500		
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$			
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)							
Cash (both Applicant and Third Party)							
- Non Cash Contributions (both Applicant and Third Party)							
NAME AND TITLE (Type or print)				SIGNATURE (required for revised budget only)			DATE
Project Director							
Authorized Organizational Representative							
Signature (for optional use)							

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS National Aquaculture Association P.O. Box 12759 Tallahassee, FL 32317 PROJECT DIRECTOR(S) Paul Zajicek Carole Engle			USDA AWARD NO. _____ Year 1 & 2: Objectives 2, 3 4 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black;"> DURATION PROPOSED MONTHS: <u>12</u> </td> <td style="width: 25%; border: 1px solid black;"> DURATION PROPOSED MONTHS: _____ </td> <td style="width: 25%; border: 1px solid black;"> Non-Federal Proposed Cost-Sharing/ Matching Funds (If required) </td> <td style="width: 25%; border: 1px solid black;"> Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different) </td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">Funds Requested by Proposer</td> <td style="border: 1px solid black; text-align: center;">Funds Approved by CSREES (If different)</td> <td style="border: 1px solid black;"></td> <td style="border: 1px solid black;"></td> </tr> </table>				DURATION PROPOSED MONTHS: <u>12</u>	DURATION PROPOSED MONTHS: _____	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)	Funds Requested by Proposer	Funds Approved by CSREES (If different)		
DURATION PROPOSED MONTHS: <u>12</u>	DURATION PROPOSED MONTHS: _____	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/ Matching Funds Approved by CSREES (If Different)											
Funds Requested by Proposer	Funds Approved by CSREES (If different)													
A. Salaries and Wages			CSREES-FUNDED WORK MONTHS											
1. No. Of Senior Personnel			Calendar	Academic	Summer									
a. _____ (Co)-PD(s)														
b. _____ Senior Associates														
No. of Other Personnel (Non-Faculty)														
_____ Research Associates/Postdoctorates														
b. _____ Other Professionals														
c. _____ Paraprofessionals														
d. _____ Graduate Students														
e. _____ Prebaccalaureate Students														
f. 1 Secretarial-Clerical						\$3,000								
g. _____ Technical, Shop and Other														
Total Salaries and Wages						\$3,000								
B. Fringe Benefits (If charged as Direct Costs)						0								
C. Total Salaries, Wages, and Fringe Benefits (A plus B)						\$3,000								
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)														
E. Materials and Supplies						\$1,000								
F. Travel						\$21,850								
G. Publication Costs/Page Charges														
H. Computer (ADPE) Costs														
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)														
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)						\$38,150								
K. Total Direct Costs (C through J)														
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)														
M. Total Direct and F&A/Indirect Costs (K plus L)														
N. Other														
O. Total Amount of This Request						\$64,000								
P. Carryover -- (If Applicable) Federal Funds: \$ _____ Non-Federal funds: \$ _____ Total \$ _____														
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)														
Cash (both Applicant and Third Party)														
- Non Cash Contributions (both Applicant and Third Party) <input type="checkbox"/>														
NAME AND TITLE (Type or print)			SIGNATURE (required for revised budget only)			DATE								
Project Director														
Authorized Organizational Representative														
Signature (for optional use)														

BUDGET EXPLANATION FOR NATIONAL AQUACULTURE ASSOCIATION

(Zajicek/Engle)

OBJECTIVES: 2, 3 & 4

D. MATERIALS AND SUPPLIES: (Items and costs)

Items	Year 1	Year 2	Total
Office supplies (pens, paper, toner, etc.)	\$500	\$500	\$1,000
Total	\$500	\$500	\$1,000

E. TRAVEL (DOMESTIC):

Year 1: All travel is domestic. One workshop will be held in Year 1. The workshop venue will be selected after participants have been identified for convenience and accessibility by all project participants, but will be in the North Central Region. Travel funds requested include up to \$637.50 per workshop participant for 14 participants (for 2 days, 1 night); \$1,000 each for one outside speaker for each workshop; and \$1,000 travel per workshop for NAA project leader, including airfare, 2 days, 1 night).

Year 2: All travel is domestic. One workshop will be held in Year 2. The Workshop venue will be selected after participants have been identified for convenience and accessibility by all project participants, but will be in the North Central Region. Travel funds requested include up to \$637.50 per participant for 14 participants (for 2 days, 1 night); \$1,000 for an outside speaker for the workshop; and \$1,000 travel to workshop for NAA project leader, including airfare, 2 days, 1 night).

Subcontract from NAA to Engle-Stone Aquatec\$LLC

Items	Year 1	Year 2	Total
Salaries & Wages	\$17,575	\$17,575	\$35,150
Fringe Benefits	\$0	\$0	\$0
Total Salaries Wages & Fringe Benefits	\$17,575	\$17,575	\$35,150
Nonexpendable Equipment	\$0	\$0	\$0
Materials & Supplies	\$500	\$500	\$1,000
Travel: Project Personnel	\$1,000	\$1,000	\$2,000
All Other Direct Costs	\$0	\$0	\$0
Total	\$19,075	\$19,075	\$38,150

UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE

OMB Approved 0524-0039

BUDGET

ORGANIZATION AND ADDRESS University of Minnesota 1333 Gortner Avenue St. Paul, MN 55108				USDA AWARD NO. Year 1: Objectives 3			
PROJECT DIRECTOR(S) Nicholas Phelps				DURATION PROPOSED MONTHS: 12 Funds Requested by Proposer	DURATION PROPOSED MONTHS: _____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost-Sharing/Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS					
1. No. Of Senior Personnel	Calendar	Academic	Summer				
a. (Co)-PD(s).....							
b. Senior Associates.....							
No. of Other Personnel (Non-Faculty)							
Research Associates/Postdoctorates.....							
b. Other Professionals.....							
c. Paraprofessionals.....							
d. Graduate Students.....							
e. Prebaccalaureate Students.....							
f. Secretarial-Clerical.....							
g. Technical, Shop and Other.....							
Total Salaries and Wages							
B. Fringe Benefits (If charged as Direct Costs)							
C. Total Salaries, Wages, and Fringe Benefits (A plus B)							
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies				\$250			
F. Travel				\$1,500			
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)							
K. Total Direct Costs (C through J)							
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L)							
N. Other.....							
O. Total Amount of This Request				\$1,750			
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$			
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)							
Cash (both Applicant and Third Party) .							
- Non Cash Contributions (both Applicant and Third Party)							
NAME AND TITLE (Type or print)				SIGNATURE (required for revised budget only)			DATE
Project Director							
Authorized Organizational Representative							
Signature (for optional use)							

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS University of Minnesota 1333 Gortner Avenue St. Paul, MN 55108				USDA AWARD NO. Year 2: Objectives 3			
PROJECT DIRECTOR(S) Nicholas Phelps				DURATION PROPOSED MONTHS: <u>12</u>	DURATION PROPOSED MONTHS: _____	Non-Federal Proposed Cost- Sharing/ Matching Funds (If required)	Non-federal Cost- Sharing/Matching Funds Approved by CSREES (If Different)
				Funds Requested by Proposer	Funds Approved by CSREES (If different)		
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS					
1. No. Of Senior Personnel		Calendar	Academic	Summer			
a. (Co)-PD(s).....							
b. ___ Senior Associates.....							
No. of Other Personnel (Non-Faculty)							
___ Research Associates/Postdoctorates.....							
b. ___ Other Professionals.....							
c. ___ Paraprofessionals.....							
d. ___ Graduate Students.....							
e. ___ Prebaccalaureate Students.....							
f. ___ Secretarial-Clerical.....							
g. ___ Technical, Shop and Other							
Total Salaries and Wages..... <input type="checkbox"/>							
B. Fringe Benefits (If charged as Direct Costs)							
C. Total Salaries, Wages, and Fringe Benefits (A plus B) <input type="checkbox"/>							
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies					\$250		
F. Travel					\$1,000		
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)							
K. Total Direct Costs (C through J) <input type="checkbox"/>							
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L) ..							
N. Other..... <input type="checkbox"/>							
O. Total Amount of This Request <input type="checkbox"/>					\$1,250		
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$			
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)							
Cash (both Applicant and Third Party) .							
- Non Cash Contributions (both Applicant and Third Party)							
NAME AND TITLE (Type or print)				SIGNATURE (required for revised budget only)			DATE
Project Director							
Authorized Organizational Representative							
Signature (for optional use)							

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS University of Minnesota 1333 Gortner Avenue St. Paul, MN 55108				USDA AWARD NO. Year 1 & 2: Objectives 3			
PROJECT DIRECTOR(S) Nicholas Phelps				DURATION PROPOSED MONTHS: <u>12</u>	DURATION PROPOSED MONTHS: _____	Non-Federal Proposed Cost- Sharing/ Matching Funds (If required)	Non-federal Cost- Sharing/Matching Funds Approved by CSREES (If Different)
				Funds Requested by Proposer	Funds Approved by CSREES (If different)		
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS					
1. No. Of Senior Personnel		Calendar	Academic	Summer			
a. (Co)-PD(s).....							
b. ___ Senior Associates.....							
No. of Other Personnel (Non-Faculty)							
___ Research Associates/Postdoctorates.....							
b. ___ Other Professionals.....							
c. ___ Paraprofessionals.....							
d. ___ Graduate Students.....							
e. ___ Prebaccalaureate Students.....							
f. ___ Secretarial-Clerical.....							
g. ___ Technical, Shop and Other							
Total Salaries and Wages..... <input type="checkbox"/>							
B. Fringe Benefits (If charged as Direct Costs)							
C. Total Salaries, Wages, and Fringe Benefits (A plus B) <input type="checkbox"/>							
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies					\$500		
F. Travel					\$2,500		
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)							
K. Total Direct Costs (C through J) <input type="checkbox"/>							
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L) ..							
N. Other..... <input type="checkbox"/>							
O. Total Amount of This Request <input type="checkbox"/>					\$3,000		
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$			
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)							
Cash (both Applicant and Third Party) .							
- Non Cash Contributions (both Applicant and Third Party)							
NAME AND TITLE (Type or print)					SIGNATURE (required for revised budget only)		DATE
Project Director							
Authorized Organizational Representative							
Signature (for optional use)							

BUDGET EXPLANATION FOR MINNESOTA STATE UNIVERSITY

(Phelps)

OBJECTIVES: 3

A. SALARIES AND WAGES:

There are no salaries or wages charged.

B. FRINGE BENEFITS:

Year 1: \$0 Year 2: \$0.

D. MATERIALS AND SUPPLIES:

Items	Year 1	Year 2	Total
Office supplies	\$250	\$250	\$500
Total	\$250	\$250	\$500

E. TRAVEL (DOMESTIC):

Year 1: All travel is domestic and consists of travel expenses to participate in one workshop to be scheduled in a convenient and accessible venue in the North Central Region. Budget includes \$750 for the workshop (2 days, 1 night) as well as travel for mentoring activities for project participants.

Year 2: All travel is domestic and consists of travel expenses to participate in one workshop to be scheduled in a convenient and accessible venue in the North Central Region. Budget includes \$750 for the workshop and \$250 to disseminate project results at local and regional meetings.

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS Michigan State University Dept. of Fisheries & Wildlife East Lansing, MI 48824 PROJECT DIRECTOR(S) Chris Weeks		USDA AWARD NO. Years 1: Objectives 3			
		DURATION PROPOSED MONTHS: <u>12</u> Funds Requested by Proposer	DURATION PROPOSED MONTHS: _____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost-Sharing/Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS			
1. No. Of Senior Personnel		Calendar	Academic	Summer	
a. (Co)-PD(s).....					
b. Senior Associates.....					
No. of Other Personnel (Non-Faculty) Research Associates/Postdoctorates.....					
b. Other Professionals.....					
c. Paraprofessionals.....					
d. Graduate Students.....					
e. Prebaccalaureate Students.....					
f. Secretarial-Clerical.....					
g. Technical, Shop and Other.....					
Total Salaries and Wages					
B. Fringe Benefits (If charged as Direct Costs)					
C. Total Salaries, Wages, and Fringe Benefits (A plus B)					
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)					
E. Materials and Supplies				\$250	
F. Travel				\$1,500	
G. Publication Costs/Page Charges					
H. Computer (ADPE) Costs					
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)					
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)					
K. Total Direct Costs (C through J)					
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)					
M. Total Direct and F&A/Indirect Costs (K plus L)					
N. Other.....					
O. Total Amount of This Request				\$1,750	
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$	
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)					
Cash (both Applicant and Third Party) .					
- Non Cash Contributions (both Applicant and Third Party)					
NAME AND TITLE (Type or print)		SIGNATURE (required for revised budget only)			DATE
Project Director					
Authorized Organizational Representative					
Signature (for optional use)					

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS Michigan State University Dept. of Fisheries & Wildlife East Lansing, MI 48824				USDA AWARD NO. Years 2: Objectives 3				
PROJECT DIRECTOR(S) Chris Weeks				DURATION PROPOSED MONTHS: <u>12</u> Funds Requested by Proposer	DURATION PROPOSED MONTHS: _____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost-Sharing/Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by CSREES (If Different)	
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS						
1. No. Of Senior Personnel		Calendar	Academic	Summer				
a. (Co)-PD(s).....								
b. Senior Associates.....								
No. of Other Personnel (Non-Faculty)								
___ Research Associates/Postdoctorates.....								
b. Other Professionals.....								
c. Paraprofessionals								
d. Graduate Students								
e. Prebaccalaureate Students								
f. Secretarial-Clerical								
g. Technical, Shop and Other								
Total Salaries and Wages								
B. Fringe Benefits (If charged as Direct Costs)								
C. Total Salaries, Wages, and Fringe Benefits (A plus B)								
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)								
E. Materials and Supplies					\$250			
F. Travel					\$1,000			
G. Publication Costs/Page Charges								
H. Computer (ADPE) Costs								
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)								
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)								
K. Total Direct Costs (C through J)								
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)								
M. Total Direct and F&A/Indirect Costs (K plus L)								
N. Other.....								
O. Total Amount of This Request					\$1,250			
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$				
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)								
Cash (both Applicant and Third Party) .								
- Non Cash Contributions (both Applicant and Third Party)								
NAME AND TITLE (Type or print)					SIGNATURE (required for revised budget only)		DATE	
Project Director								
Authorized Organizational Representative								
Signature (for optional use)								

UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
BUDGET

OMB Approved 0524-0039

ORGANIZATION AND ADDRESS Michigan State University Dept. of Fisheries & Wildlife East Lansing, MI 48824				USDA AWARD NO. Years 1 & 2: Objectives 3			
PROJECT DIRECTOR(S) Chris Weeks				DURATION PROPOSED MONTHS: <u>12</u> Funds Requested by Proposer	DURATION PROPOSED MONTHS: _____ Funds Approved by CSREES (If different)	Non-Federal Proposed Cost- Sharing/ Matching Funds (If required)	Non-federal Cost- Sharing/Matching Funds Approved by CSREES (If Different)
A. Salaries and Wages		CSREES-FUNDED WORK MONTHS					
1. No. Of Senior Personnel		Calendar	Academic	Summer			
a. _____(Co)-PD(s).....							
b. _____Senior Associates.....							
No. of Other Personnel (Non-Faculty)							
_____ Research Associates/Postdoctorates.....							
b. _____Other Professionals.....							
c. _____Paraprofessionals							
d. _____Graduate Students							
e. _____ Prebaccalaureate Students							
f. _____ Secretarial-Clerical							
g. _____ Technical, Shop and Other							
Total Salaries and Wages.....							
B. Fringe Benefits (If charged as Direct Costs)							
C. Total Salaries, Wages, and Fringe Benefits (A plus B)							
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies					\$500		
F. Travel					\$2,500		
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)							
K. Total Direct Costs (C through J)							
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L)							
N. Other.....							
O. Total Amount of This Request.....					\$3,000		
P. Carryover -- (If Applicable) Federal Funds: \$		Non-Federal funds: \$		Total \$			
Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)							
Cash (both Applicant and Third Party) .							
- Non Cash Contributions (both Applicant and Third Party)							
NAME AND TITLE (Type or print)				SIGNATURE (required for revised budget only)		DATE	
Project Director							
Authorized Organizational Representative							
Signature (for optional use)							

BUDGET EXPLANATION FOR MICHIGAN STATE UNIVERSITY

(Weeks)

OBJECTIVES: 3

A. SALARIES AND WAGES:

There are no salaries and wages charged.

B. FRINGE BENEFITS:

Year 1: \$0 Year 2: \$0.

D. MATERIALS AND SUPPLIES:

Items	Year 1	Year 2	Total
Office supplies	\$250	\$250	\$500
Total	\$250	\$250	\$500

E. TRAVEL (DOMESTIC):

Year 1: All travel is domestic and consists of travel expenses to participate in one workshop to be scheduled in a convenient and accessible venue in the North Central Region. Budget includes \$750 per workshop (2 days, 1 night), as well as travel for mentoring activities for project participants.

Year 2: All travel is domestic and consists of travel expenses to participate in one workshop to be scheduled in a convenient and accessible venue in the North Central Region. Budget includes \$750 for the workshop and \$250 to disseminate project results at local and regional meetings.

BUDGET SUMMARY FOR EACH YEAR FOR EACH PARTICIPATING INSTITUTIONS

Summary Budget, Years 1 and 2, By Institution

	National Aquaculture Association	Michigan State University	University of Minnesota	Total
Salaries and Wages	3,000	0	0	3,000
Fringe Benefits	0	0	0	0
Total Salaries, Wages, and Fringe Benefits	3,000	0	0	3,000
Nonexpendable Equipment	0	0	0	0
Materials and Supplies	1,000	500	500	2,000
Travel				
Project personnel	2,000	2,500	2,500	7,000
Workshop presenters	2,000	0	0	2,000
Project participants	17,850	0	0	17,850
All Other Direct Costs				
Subcontract with Engle-Stone Aquatic\$ LLC	38,150	0	0	38,150
TOTAL	64,000	3,000	3,000	70,000

**Subcontract from National Aquaculture Association to Engle-Stone Aquatic\$ LLC
Summary Budget, Years 1 and 2**

Item	Amount to Engle-Stone Aquatic\$ LLC
Salaries and Wages	0
Fringe Benefits	0
Total Salaries, Wages, and Fringe Benefits	35,150
Nonexpendable Equipment	0
Materials and Supplies	1,000
Travel	
Project personnel	2,000
All Other Direct Costs	0
TOTAL	38,150

Table 1. Number of aquaculture producers, North Central Region, by State.

State	Aquaculture Producers
Wisconsin	80
Ohio	61
Minnesota	35
Missouri	35
Michigan	32
Iowa	31
Illinois	23
Nebraska	21
Indiana	7
South Dakota	7
Kansas	4
North Dakota	-

SOURCE: USDA (2014).

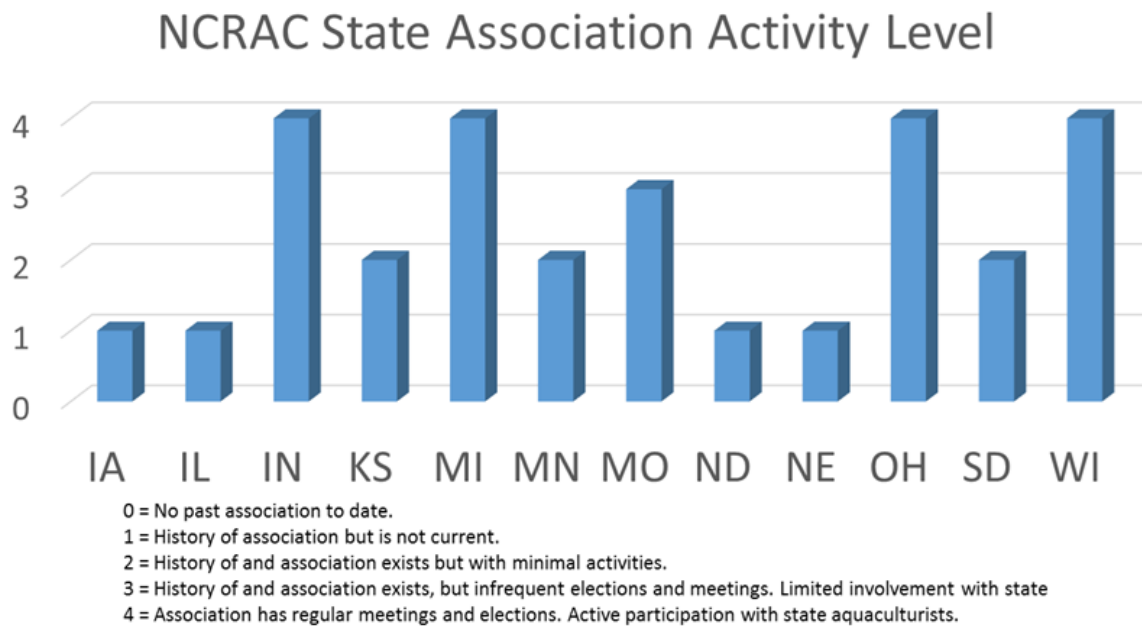


Figure 1. Classification by state of activity level of state aquaculture associations, North Central Region.
 Source: Office of the North Central Regional Aquaculture Center (2015).

SCHEDULE FOR COMPLETION OF OBJECTIVES

Start date: September 1, 2016

Completion date: August 31, 2018

Year 1: Objective 2 will be completed in Year 1; Objectives 3 and 4 initiated.

Months 1 through 5:

1. Identify project participants.
2. Develop schedule of workshops.
3. Identify and schedule outside speakers.
4. Conduct webinar to provide background and instructions for participants on how to identify a priority goal for their association.
5. Send project participants a pre-evaluation questionnaire to assess knowledge and experience related to the two workshop themes (Media Relations, and Engaging Membership).
6. Send project participants written instructions for the initial assignment to identify a priority issue for their state and to set a goal to work on throughout the project.
7. Develop workshop materials, including background materials, assignments, presentations, and role-playing exercises.
8. Approve travel requests for participants.

Months 6 through 12:

1. Conduct Workshop 1 (Media Relations)
2. Provide mentoring, follow-up, and advice on assignment activities before and in the interim between workshops.

Year 2: Complete Objectives 3 and 4.

1. Conduct Workshop 2 (Engaging Your Membership)
2. Provide mentoring, follow-up, and advice on assignment activities between Workshops 1 and 2.
3. Develop fact sheet on the process of developing and implementing leadership development and training programs.
4. Develop two informational packets, one on each of the two workshop themes (Media Relations and Engaging Your Membership) that could be used by Extension personnel or industry associations in other states to conduct similar workshops and programs.

5. Conduct an evaluation of the leadership development and training program. The evaluation will compile results of the evaluations of each workshop as completed by project participants. A final evaluation questionnaire will be distributed to each participant after the third workshop to evaluate knowledge gained and changes in behaviors of participants as a result of the leadership development and training program. Knowledge gained will be determined by comparing results of the pre-evaluation questionnaire administered before Workshop 1 and that demonstrated in the evaluation instrument administered after Workshop 2

6. Prepare final report on project.

PARTICIPATING INSTITUTIONS AND PRINCIPAL INVESTIGATORS

Michigan State University

Chris Weeks

University of Minnesota

Nicholas Phelps

National Aquaculture Association

Paul Zajicek

Engle-Stone Aquatic\$ LLC

Carole Engle

VITA

Carole Engle, Engle-Stone Aquatic\$ LLC
320 Faith Lane
Strasburg, VA 22657

Phone: 870-489-4259
FAX: none
E-mail: cengle8523@gmail.com

EDUCATION

B.S. Friends World College, 1975, Biology/Rural Development
M.S. Auburn University, 1978, Aquaculture Economics
Ph.D. Auburn University, 1981, Aquaculture Economics

POSITIONS

July 1, 2015 – present Member/Manager, Engle-Stone Aquatic\$ LLC
1996-2015 Chairperson/Director, Aquaculture and Fisheries, UAPB, retired June 30, 2015
1994-present Professor, Aquaculture/Fisheries Center, Assoc. Prof. 1988-1994, UAPB
1986-88 Assistant Professor, Economics, Auburn University at Montgomery
1984-85 Fisheries Economist, Inter-American Development Bank, Panama
1981-83 Visiting Professor, Universidad Centroamericana, Nicaragua

SELECTED PUBLICATIONS

Engle, C.R. 2010. Aquaculture Economics and Financing: Management and Analysis. Blackwell Scientific, Ames, Iowa.

Engle, C.R., K. Quagraine, and M.Dey. 2016. Seafood and Aquaculture Marketing, Second Edition. Blackwell Scientific, Ames, Iowa.

Kumar, G., C.R. Engle, and C.S. Tucker. 2016. Costs and risk of catfish split-pond systems. Journal of the World Aquaculture Society 47(3):doi: 10.1111/jwas.12271.

Kumar, G. and C.R. Engle. 2016. Technological advances that led to growth of shrimp, salmon, and tilapia farming. Reviews in Fisheries Science and Aquaculture 24(2):136-152.

Thapa, G., M. Dey, and C.R. Engle. 2015. Consumer preferences for live seafood in the Northeastern region of USA: results from Asian ethnic fish market survey. Aquaculture Economics & Management 19(2):210-225.

Rees, P. and C.Engle. 2014. Foodfish production strategies using 13-cm and 19-cm hybrid catfish (*♀Ictalurus punctatus* x *♂Ictalurus furcatus*). Journal of the World Aquaculture Society 45(4):412-420.

Johnson, K., C. Engle, and B. Wagner. 2014. Comparative economics of U.S. catfish production strategies: evidence from a cross-sectional survey. Journal of the World Aquaculture Society 45(3):279-289.

Kumar, G. and C. R. Engle. 2014. Optimizing catfish feeding and stocking strategies over a two- year planning horizon, Aquaculture Economics & Management 18(2):169-188.

Sapkota, P., C.R. Engle, and P. Wui. 2014. A mathematical programming model of year-round hybrid striped bass (*♀Morone chrysops* x *♂Morone saxatilis*) fingerling production. Aquaculture Economics & Management 18(1):60-75.

Engle, C.R., N. Stone, and L. Xie. 2013. Feasibility of pond production of largemouth bass, *Micropterus salmoides*, for a fillet market. Journal of the World Aquaculture Society 44(6):805-813.

VITA

Nicholas B. D. Phelps
University of Minnesota
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EDUCATION

B.S.	Bemidji State University	2005	Aquatic Biology
M.S.	University of Arkansas, Pine Bluff	2007	Aquaculture Fisheries
Ph.D.	University of Minnesota	2012	Veterinary Medicine

POSITIONS

2013-present	Assistant Professor, Dept Veterinary Population Medicine, College of Veterinary Medicine, U of Minnesota, MN
2009-2013	Instructor, Dept Veterinary Population Medicine, College of Veterinary Medicine, U of Minnesota, MN
2009-present	Aquaculture Specialist, Extension, U of Minnesota, MN
2009-present	Head, Fisheries Diagnostic Service, Veterinary Diagnostic Laboratory, College of Veterinary Medicine, U of Minnesota, MN
2008-2009	Scientist, Veterinary Diagnostic Laboratory, College of Veterinary Medicine, U of Minnesota, MN
2007-2008	Scientist, Veterinary Diagnostic Laboratory, College of Veterinary Medicine, U of Minnesota, MN
2005-2007	Research Assistant, Fish Disease Laboratory, University of Arkansas at Pine Bluff, AR

SELECTED PUBLICATIONS

Phelps, N.B., Pelican, K., Goyal, S., Craft, M., and D. Travis. In press. Risk-based management of viral hemorrhagic septicemia virus (VHSV-IVb) in Minnesota. *North American Journal of Fisheries Management*.

Phelps, N., S. Mor, A. Armien, W. Batts, A. Goodwin, L. Hopper, R. McCann, T. Ng, C. Puzach, T. Waltzek, E. Delart, J. Winton, S. Goyal. In press. Characterization of the novel fathead minnow picornavirus. *PlosOne*.

Phelps, N., A. Goodwin, E. Marecaux, S. Goyal. 2013. Comparison of treatments to inactivate viral hemorrhagic septicemia virus in frozen baitfish. *Diseases of Aquatic Organisms* 102:211-216.

Phelps, N., A. Armien, S. Mor, S. Goyal, J. Warg, R. Bhagyam, T. Monahan. 2012. Spring viremia of carp virus in the Minnehaha Creek, Minnesota. *Journal of Aquatic Animal Health* 24:232-237.

VITA

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EDUCATION

B.S.	San Diego State University	1986	Aerospace Engineering
M.S.	Michigan State University	1997	Fisheries and Wildlife – Fish Population Dynamics
Ph.D.	Michigan State University	2007	Fisheries and Wildlife – Aquaculture/Fish Nutrition

POSITIONS

2008 – Present	Regional Aquaculture Extension Specialist, North Central Regional Aquaculture Center Adjunct Professor, University of Alaska
2007 – 2008	Research Associate / Specialist, Michigan State University Dept. of Fisheries and Wildlife
1996 – 2009	Consultant, Aquaculture Bioengineering Corp., Rives Junction, Michigan 2003 – 2007 Lab Manager, Michigan State University Aquatic Animal Health Lab 2002 – 2007 Graduate Assistant, Michigan State University
2000 – 2001	Aquaculture Facility Manager, Stoney Creek Fisheries, Harrietta, Michigan 1998 – 2000 Hatchery Manager, Great Black Creek Fish Co., Black Creek, Wisconsin 1989 – 1993 Cade Industries, Engineer, San Diego, California; Lansing, Michigan
1986 – 1989	McDonnell Douglas, Engineer, Long Beach, California

SELECTED PUBLICATIONS

Colyn, J., G. Boersen and C.T. Weeks. 2014. A strategic plan for a thriving and sustainable Michigan aquaculture – Michigan Sea Grant integrated assessment.
http://michiganaquaculture.org/wp-content/uploads/2014/04/2014-MAA-Strategic-Plan_2.25.14.pdf

Weeks, C.T. 2013. Sustainable aquaculture in the north central region US - review of perceptions and recommendations from the aquaculture community. *Journal of Extension* v51 no.2 - 2COM1.

Weeks, C.T. 2011. Incorporating deliverables into the NCRAC project development process. North Central Regional Aquaculture Center Report. North Central Regional Aquaculture Center, December 2011.

Weeks, C.T. 2011. NCR aquaculture critical needs assessment report. North Central Regional Aquaculture Center Report, October 2011.

Weeks, C.T., L. Tiu and J. Morris, 2010. Improving information transfer to the NCR aquaculture industry, extension priorities and work plan development. Report to North Central Regional Aquaculture Center. East Lansing, Michigan.

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EDUCATION

B.S.	Florida Institute of Technology	1977	Biology/Marine Biology
M.S.	University of Florida	1986	Agriculture/Sales and Marketing

POSITIONS

12/2014 to Present	Development Director, National Aquaculture Association.
2012-2014	Environmental Administrator, Florida Dept of Agriculture and Consumer Services
1999-2012	Biological Administrator, FDACS
1987-1999	Development Representative, FDACS
1978-1986	Manager, The Bait Box
1969-1976	Field Biologist, Caretta Research, Inc.

SCIENTIFIC AND PROFESSIONAL ORGANIZATIONS

American Fisheries Society Florida Aquaculture Association North
American Sturgeon and Paddlefish Society
U.S. Aquaculture Society World Aquaculture Society

SELECTED PUBLICATIONS

Zajicek, P., A.E. Goodwin and T. Weier. 2011. Triploid grass carp: triploid induction, sterility, reversion, and certification. *North American Journal of Fisheries Management* 31(4): 614-618.

Zajicek, P., S. Hardin, and C. Watson. 2009. A Florida marine ornamental pathway risk analysis. *Reviews in Fisheries Science* 17(2): 156-169.

Zajicek, P.W., T. Weier, S. Hardin, J.R. Cassani and V. Mudrak. 2009. A triploid grass carp risk analysis specific to Florida. *Journal of Aquatic Plant Management* 47:15-20.

Boyd, C.E., P.W. Zajicek, J.A. Hargreaves and G.L. Jensen. 2008. Development, implementation, and verification of best management practices for aquaculture *in* C.S. Tucker and J.A. Hargreaves (ed) *Environmental Best Management Practices for Aquaculture*. Blackwell Publishing, Oxford UK.

Jensen, G.L. and P.W. Zajicek. 2008. Best management practice programs and initiatives in the United States *in* C.S. Tucker and J.A. Hargreaves (ed) *Environmental Best Management Practices for Aquaculture*. Blackwell Publishing, Oxford UK.

Hill, J.E. and P. Zajicek. 2007. National aquatic species risk analysis: a call for improved implementation. *Fisheries* 32(11): 530-538.

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