Fish Health Newsletter

American Fisheries Society/Fish Health Section

Volume 31 Number 3 July 2003

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President's Message

I'd like to start by saying thanks for the honor of being elected as your Section president. While it is an honor, its even more an opportunity and obligation to serve you and the Section. Feel free to email me or call me (435-752-1066 ext. 21) any time I can be of service.

One of my major goals in the coming year is to provide an outreach for the Section. In the past few years, our membership has leveled off. With fish pathogens such as ISAV, spring viremia and whirling disease receiving such notoriety recently, we ought to be growing and reaching out even more to new individuals and agencies that are involved in fish health issues. I especially want to reach out to students and professionals such as veterinarians that are playing an increasing role in aquatic animal health. I encourage each member to make it his or her goal to recruit at least one new member in the coming year.

Its also my goal to increase the visibility of Section in the upcoming year. One large step in that direction will be the imminent release of the updated, digital Bluebook. Its been nine years since the Bluebook has been revised and is now available for purchase on CD from AFS (see notice on page 5). I think everyone will be impressed with the incorporation of new diagnostic technologies, chapters on new and emerging pathogens, and many color photographs. A special thanks to Andy Goodwin, Jerri Bartholomew, Kari Higbee, Joy Evered, Trish Barbash, Rob Bakal, Tom Bell and all the authors who worked so hard to make this happen. Nice Job!!!

Lastly, I would recognize the recipients of our major awards at the Fish Health Section meeting in Seattle. Past-president **Jerri Bartholomew** received the **Distinguished Service Award** for her excellent efforts in creating a news listserv for the Section. Former president and co-founder of the Section, **Ron Goede** received the **S.F. Sniezsko Lifetime Achievement Award** for his many long years of service and accomplishments in fish health. Immediate past-president **Paul Bowser** was recognized for his excellent efforts and year of service to the Section. All of these individuals embody the ethic of excellence, professionalism, dedication and service. Hats off to them all!

Chris Wilson, President

Past President's Report:

It was great to see so many of you at the recent AFS Fish Health Section Annual Meeting and Western Fish Disease Workshop in Seattle. As I move on from President to Past President I want to thank the membership of the Fish Health Section for all your support during this past year. Whenever I requested someone serve on a committee or take on another role, I was never turned down. Working with you was a true pleasure. On a personal level, I thank you for all your encouragement, your council and most of all for your friendship.

Among those recent accomplishments of the Section, one of the most notable was that surrounding what has historically been known as the Fish Health Section Blue Book. In an effort that has progressed over several years, a considerable number of Fish Health Section members provided input into the Inspection Manual, officially titled: "Standard Procedures for Aquatic Animal Inspections." This document was co-authored by the USFWS and the AFS Fish Health Section. Special mention for their roles in this project goes to Robert Bakal, Jerri Bartholomew, Chris Wilson, Joy Evered, Patricia Barbash and Andy Goodwin. Within the Inspection Manual effort is a mechanism for annual reviews and revisions as necessary. The FHS Blue Book, which will contain the Inspection Manual, will be available through the American Fisheries Society in an electronic CD format. The CD will contain both the familiar chapters of the "Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens" and the newly developed "Standard Procedures for Aquatic Animal Health Inspections". This new format allows the user to easily access information and contains numerous color photographs and video clips. I hope many of you were able to access the demonstration copy of the CD that was provided by Chris Wilson during the Seattle meeting. If you did, I'm sure you will agree that this will be an extremely valuable resource for the fish health community.

The Fish Health Section has been extremely active in the area of Continuing Education over the past year. A CE workshop was presented at the 2003 Eastern Fish Health Workshop (Molecular Biology - The Basics) and at the 2003 FHS Annual Meeting/Western Fish Disease Workshop (Fish Virology). Plans are underway for CE presentations at the 2004 Eastern Fish Health Workshop (Tumor Biology) and the 2004 FHS Annual Meeting (Parasitology). These workshops are part of an effort to provide opportunities for Fish Pathologists and Fish Health Inspectors to obtain the necessary continuing education for recertification. In addition, they provide the membership at large with the opportunity to obtain training in focused areas of aquatic animal health. If you have suggestions for future CE workshops, please bring them to the attention of the CE Committee.

We are moving toward an earlier identification of the meeting sites for future Fish Health Section meetings. As was announced at the 2003 FHS Business Meeting, the 2004 FHS Annual Meeting will be held at the National Conservation Training Center (NCTC) in Shepherdstown, WV during the last week of July, 2004. In the following year, the Fish Health Section moves back to the Midwest with the meeting to be held in Minneapolis, MN in the summer of 2005. The Fish Health Section has also initiated an effort to bring more structure to its relationship with the International Symposia of Aquatic Animal Health. The ISAAH concept originated as an effort on the part of the FHS to put a focused effort into their annual meeting at regular intervals (each 4-5 years) to make it an expanded international event. The first meeting was organized by Trevor Evelyn in 1988 in Vancouver, B.C.

Subsequent symposia were organized by Jim Winton and Ron Hedrick in 1994 (Seattle), Sarah Poynton and Andy Kane in 1988 (Baltimore) and Ron Thune and John Hawke in 2002 (New Orleans). An International Meeting Oversight Committee has been formed to provide general guidance to future meeting organizers as well as recommendations to the FHS Executive Committee on matters associated with future ISAAH's. Part of this effort will be more formal procedures for the provision of start-up funds from the FHS to Symposium organizers for each meeting and for the maintenance of a separate International Meeting account within the FHS treasury. It is likely that we will be using the services of a professional conference coordinator for logistical support for the next meeting. Although such professional services do charge a fee, it is anticipated that the discounts that such services can obtain for their clients (i.e. the membership of the FHS) in terms of lower hotel and travel costs will more than offset the cost of the professional conference organizer. Such services also allow more flexibility in identification of the meeting site because the organizers of the scientific program do not have to be located in close proximity to the meeting location. They are freed from duties associated with hotel facilities and other local logistical support matters. The primary activities of the Symposium organizers would center on the development of the scientific program. Although we have not identified the location of the next ISAAH, the current schedule would have it being held in 2006 in the West.

As you are aware, the Journal of Aquatic Animal Health has been accepting manuscripts via an electronic mechanism since the first of the year. I encourage you to consider the Journal as an outlet for publication of your manuscripts. The electronic submission mechanism will provide many advantages in terms of reducing time and cost of publication. You may be aware that the American Fisheries Society has expressed concerns over two of their journals, the North American Journal of Aquaculture and the Journal of Aquatic Animal Health. There is an AFS Ad Hoc committee that has been evaluating these two journals and ways to strengthen them. Within the Fish Health Section, the Publications Advisory Committee has also been discussing issues associated with JAAH. These discussions are ongoing. If you have ideas, I encourage you to become involved in the discussions. The goal is to maintain JAAH as a respected publication outlet for the field of aquatic animal health.

As we move into the 2003-2004 there have been a few changes in committee leadership positions in the Fish Health Section. Pete Taylor rotates off the Professional Standards Committee, Andy Goodwin rotates off the Technical Standards Committee and Margaret Ewing rotates off the Nominations Committee. Many thanks go to Pete, Andy and Margaret for their service to the FHS in these roles. Welcome aboard as chairs go to Susan Marcquenski (Technical Standards), Joy Evered (Professional Standards) and Beth MacConnell (Nominating and Balloting Committee). Also welcome aboard to Ron Hedrick in his role as chair of the newly constituted International Meeting Oversight Committee. I know you will give these members your support as you did for me during my term as President.

Paul R. Bowser
Past President

Meetings:

Aquatic Animal Models of Human Disease

The University of Miami and the American Type Culture Collection (ATCC®) are pleased to announce a conference entitled "Aquatic Animal Models of Human Disease." This meeting is sponsored by the National Center for Research Resources (NCRR) of the National Institutes of Health and will be held at the ATCC facility in Manassas, VA, from September 29 through October 2, 2003. Topics for scientific sessions will include the use of aquatic animal models for the study of comparative genomics, gene expression, transgenesis, carcinogenesis, toxicology, infectious disease, neurological disorders and aging. Workshops are planned on transgenesis and gene expression, as well as on current technologies for resource development and funding mechanisms. Submissions of abstracts for oral and poster presentations are invited with a deadline of July 1, 2003. Registration will be limited. A complete conference website will be available soon via the ATCC website at http://pasteur.atcc.org/aquatic_conference/ .

The 29th Annual Eastern Fish Health Workshop

The meeting will be held from 22 - 26 March 2004 at the Royal Pavilion Resort and Conference Center in Atlantic Beach (North Carolina). In addition to our three days of general sessions, plans are underway for a one-day continuing education workshop on understanding tumors and neoplasia in lower vertebrates.
The Royal Pavilion is an ocean-front facility used in the past. Many of our participants have asked to return to this site. You can check out the resort's website at http://www.rpresort.com/royalpav.
If you have not received announcements for this meeting, you can be placed on the e-mail distribution list for further announcements by contacting Rocco Cipriano at Rocco_Cipriano@usgs.gov.

2004 Annual Meeting of the Fish Health Section, American Fisheries Society

The meeting will be held during the last week of July, 2004 at the National Conservation Training Center in Shepherdstown, WV. For more information on this state-of-the-art facility, see their Web Site at http://training.fws.gov/. Plans are underway to present a one-day continuing education workshop on current topics in fish parasitology during the meeting. The meeting is being organized by Vicki Blazer (vicki_blazer@usgs.gov).

2005 Annual Meeting of the Fish Health Section, American Fisheries Society

In 2005 the Annual Meeting of the Fish Health Section will move to the Midwest. An offer to host the meeting by Joe Marcino of the Minnesota DNR has been accepted by the FHS. The meeting will be in the Minneapolis, MN area with the specific date in the summer not yet confirmed.

American Fisheries Society 133rd Annual Meeting
Québec City, Québec, Canada
August 10-14, 2003

"Worldwide decline of wild fish populations"

Preregistration begins April 2003.
For more information on the meeting or to register online, please go to www.fisheries.org and click on "Annual Meeting"

4th World Fisheries Congress
Vancouver, BC CANADA
May 2 - 6, 2004

The Congress theme, "Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems," will be addressed by a world class list of Keynote speakers, session topics, posters, limited presentations, round table discussions, forums, workshops and debates.

Online Abstract Submittal for the Fourth World Fisheries Congress will open April 2003. Please visit www.worldfisheries2004.org for details

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Announcements:

New Books from AFS

Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens, 5th Edition, 2003.
Includes the USFWS/AFS-FHS Standard Procedures for Aquatic Animal Health Inspections

CD-ROM, July 2003, updated annually
ISBN 1-888569-53-0
Stock Number: 703.14
1-YEAR SUBSCRIPTION
List Price: $100 - AFS Member Price: $75
3-YEAR SUBSCRIPTION
List Price: $150 - AFS Member Price: $100
Originally published in loose-leaf format as the Blue Book, this updated, searchable CD contains both the familiar chapters of the "Suggested Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens" and the newly revised "Standard Procedures for Aquatic Animal Health Inspections," co-authored by the U.S. Fish and Wildlife Service and the AFS Fish Health Section. This new format allows the user to easily access information and contains numerous color photographs and video clips. Published by the AFS Fish Health Section. Visit the AFS Online Bookstore at www.fisheries.org and click on “Bookstore”

Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Cnidaria and Ctenophora, Second Edition
Stephen D. Cairns et al.

The purpose of this volume (an update to the first edition and now with a CD-ROM) is to provide a checklist of species and to recommend selected common names for North American Cnidaria and Ctenophora, thereby achieving uniformity and avoiding confusion in the nomenclature of their common names. In addition to stabilizing common name nomenclature, this list will heighten public awareness of the diversity and wide distribution of cnidarians in North America, help identify taxonomic groups in need of systematic revision, and serve as a preliminary guide to the literature required for the identification of species.

This text lists more than 1,300 taxa of jellyfishes, hydroids, corals, anemones, and comb jellies and sets the standard for vernacular names of the more widely known species. This book also includes an index, extensive references and bibliography, and annotated changes from the first edition.

Special Publication 28
115 pp., + 32 color photographs, paper, March 2003
Book and companion CD:
Stock number 510.28P
ISBN 1-888569-39-5
List Price: $39
AFS Member Price: $27

CD only:
Stock number 703.12
ISBN 1-888569-45-X
List Price: $34
AFS Member Price: $23

Strategies for Restoring River Ecosystems: Sources of Variability and Uncertainty in Natural and Managed Systems
Robert C. Wissmar and Peter A. Bisson, editors

Fisheries and natural resource managers and policymakers need more efficient procedures for identifying sources of variability in ecosystems (natural and managed) and assessing uncertainties of managing and making decisions for developing and implementing river restoration strategies. This book seeks to integrate perspectives on variability of physical and biological functions and concepts of uncertainty in natural and managed systems, into strategies for renewing and conserving river ecosystems. The book explores approaches to understanding and communicating the processes contributing to the variability of different types of river systems, and to assessing major sources of uncertainty in natural and managed river ecosystems.

276 pp., paper
Stock Number: 550.44
List Price: $69
AFS Member Price: $48
ISBN 1-888569-46-8

A Guide to Sampling Freshwater Mussel Populations
David L. Strayer and David R. Smith

Assessing mussel populations accurately and efficiently requires knowledge of both statistical principles and mussel biology. The purpose of this guide is to provide practical advice to environmental professionals to help them choose sound designs and methods for assessing freshwater mussel populations. The authors critically review sampling designs and methods that might be useful for sampling freshwater mussel populations and offer exemplary designs to meet several common objectives. The guide is largely compiled from published works, although some new, unpublished material is included, and brings together into a coherent, compact form the information needed to design mussel surveys and assessments.

AFS Monograph 8
110 pp., paper, June 2003
Stock Number: 520.08
List Price: $55
AFS Member Price: $38
ISBN 1-888569-50-6

Mysteries from the Yukon: The Adventures of a Junior Biologist
Lawrence S. Buklis

Flowing through the heart of Alaska, the Yukon River is the scene for stories of mystery and adventure. Searching for lost gold from the Klondike, chasing thieves in a blinding snowstorm, plunging through raging waters on a hydropower project gone wrong-- three fast-paced adventures await readers in grades 5 through 9.
Mystery and adventures of another kind await as well. Have you ever dreamed of working in the great outdoors? To call it your job to work in places others can only hope to visit? Have you wanted to discover how natural systems work, to explore frontiers still to be found? Through the experiences of a fishery biologist and his family on the legendary Yukon, these adventures help feed the dream: could this be me?

217 pp., paper, June 2003
Stock Number: 550.46
List Price: $21
AFS Member Price: $15
ISBN 1-888569-52-2

To order any of the above titles:

Online: www.fisheries.org/cgi-bin/hazel-cgi/hazel.cgi
Phone: (678) 366-1411, or Fax: (770) 442-9742
Email: afspubs@pbd.com

The American Fisheries Society (AFS) is pleased to announce its newest online service – Fisheries InfoBase, providing abstracts and the full-text PDF versions of 1988-1997 articles appearing in AFS journals.
For subscription information, visit
http://www.fisheries.org/publications/Infobase/afs_infobase.shtml
Or go online to the AFS Homepage at www.fisheries.org and click on "Fisheries InfoBase"

Call for pictures:

We are a small, independent, not-for-profit media company currently producing a documentary program for public television exploring the problems and potentials of aquaculture (a necessity for world food security). Our documentary will include the positive steps some segments of the industry are taking to address concerns of critics and to develop more sustainable methods. One of the problematic impacts of aquaculture is the outbreak of diseases in the netcages or ponds. We would like to show photos of some of the diseases that appear on farmed salmon and farmed shrimp:

Salmon...
IHN (Infectious Hematopoietic Necrosis Virus)
ISA (Infectious Salmon Anemia)
IPN (Infectious Pancreatic Necrosis)
Shrimp...
white spot/red body virus
Taura Syndrome
Infectious Hypodermal and Hematopoietic Necrosis
Yellow-head Virus Disease

Would the Fish Health Section of the American Fisheries Society have high-resolution photos or slides of any of the aforementioned diseases, and if so, would it be possible for us to use them? Thank you for your time and assistance.
Regards,

Julie Yoon
Associate Producer

HABITAT MEDIA
883 Fourth Street ,San Rafael, CA 94901
ph: 415.458.1696

fax: 415.458.1697
www.habitatmedia.org
Attention ISAv fish disease researchers: The Atlantic Salmon Kidney (ASK) cell line is now available from the ATCC www.atcc.org as catalog number CRL-2747. Based on my research with Dr. Jim Winton at the WFRC, USGS, this cell line is an extremely valuable tool for the detection and propagation of ISAv.
Thanks,

Jill Bente Rolland
Fishery Biologist
USDA/APHIS/VS/CCS
4700 River Road, Unit 46
Riverdale, MD 20737
301.734.7727

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FHS 2003-04

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Following are two documents that have been approved by the Federal Executive Committee of the National Aquatic Animal Health Task Force, JSA - Outline of a National Plan and Project Summary for the Development of a National Aquatic Animal Health Plan. These two documents will be shared with the JSA membership in Washington DC during the last week of July. These documents are being shared with members of the AVMA and the AFS/FHS to assure that the development of a national plan is a flexible and dynamic process. As you review the development process, you will note that workshops will be scheduled to bring together experts from these organizations to help formulate the plan. The Task Force looks forward to your input and cooperation. If you have any questions or comments, contact Kevin Amos (Kevin.Amos@noaa.gov) or Jill Rolland at USDA/APHIS (Jill.B.Rolland@aphis.usda.gov)."

Development of a National Aquatic Animal Health Plan
prepared by the
National Aquatic Animal Health Task Force
Sub-committee on Aquaculture

United States Department of Agriculture, Animal and Plant Health Inspection Service
United States Department of Commerce, National Marine Fisheries Service
United State Department of Interior, Fish and Wildlife Service

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PROJECT SUMMARY

"Development of a National Aquatic Animal Health Plan" National Aquatic Animal Health Task Force Sub-Committee on Aquaculture

Project Development Period:
May 1, 2003 to June 30, 2005

Summary:
This project will develop a National Aquatic Animal Health Plan (NAAHP) and will contain the necessary components which will: provide for the safe and efficient interstate and international transport of aquatic animals; protect farmed and wild aquatic animal resources from the import of foreign aquatic pests, diseases and their causative agents; help the U.S. meet its international aquatic animal health obligations; and, ensure the availability of diagnostic and certification services for public, private and tribal entities. Prior to finalization of the plan, it will be subjected to a simulation testing procedure which will: 1) test the plan's component construction, logistical approach, and jurisdictional feasibility; 2) test potential modifications to the plan; and 3) resolve impediments to the plan's efficiency. Lessons learned from the simulated implementation testing will result in a more rigorous NAAHP. The NAAHP framework will be consistent with the policies and guidelines of the World Trade Organization (WTO) and the Office International des Epizooties (OIE) and other relevant international requirements. The development, simulated testing, and implementation of the NAAHP will be a cooperative and

collaborative effort with Federal, state, tribal and private representatives under the leadership and direction of the National Aquatic Animal Health Task Force (Task Force).

Work Plan and Implementation Approach:
The National Aquatic Animal Health Plan will contain the following elements: 1) identify the need for a health plan highlighting the economic and environmental value of aquaculture in the United States and the impact of disease on its success; 2) roles and responsibilities of Federal government and stakeholders; 3) protocols to enable commerce of live aquatic animal products; 4) lists of aquatic animal diseases of regulatory concern; 5) procedures for inspection and testing of aquatic animals for diseases of concern; 6) criteria for accrediting individuals and laboratories conducting disease testing; 7) procedures to report and track the occurrence of diseased aquatic animals; 8) procedures to quarantine, and if appropriate, destroy and dispose of diseased aquatic animals; 9) indemnification protocols; 10) testing of proposed plan in a simulation; 11) a process to identify and fund aquatic animal health research; 12) a program of education and training for fish health professionals and aquaculturists; 13) an outreach and awareness program; 14) an evaluation program to determine the success of the plan from development through implementation and operation; and; 15) a pre-determined process for periodic review and revisions to NAAHP.

The Federal Executive Committee of the National Aquatic Animal Health Task Force , hereafter, referred to as the "Executive Committee"or "FEC", is composed of three people - one representative from USDA/APHIS who serves as chair (Dr. John Clifford); one representative from USDC/NMFS who will serve as Vice Co-Chair (Mr. Spencer Garrett); and one representative from Interior/FWS, who will also serve as Vice Co-Chair (Dr. Tom Bell). The project approach will consist of the development of a draft NAAHP by the Task Force, taking into consideration input from the JSA and stakeholders. The draft NAAHP will be provided to the Task Force, JSA, and stakeholders for review. Following an initial review, the draft NAAHP will be pilot tested, modified as needed and re-tested. The final NAAHP will then be submitted to the Executive Committee for final review and approval. Respective Federal agencies will implement recommendations as appropriate within their legal mandates. If during the process of plan development it is identified that changes to existing Federal jurisdictions would improve the administration of the program, recommendations will be made to that end.

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ELEMENT 1.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Outline and approach for writing NAAHP
LEAD AUTHORS: Kevin Amos and Jill Rolland
QA REVIEWER: FEC

OBJECTIVE: Develop an outline for the national aquatic animal health plan (NAAHP) and draft a process of how the plan will be written, including time lines and resources needed to complete task.

BACKGROUND: The mission of the National Aquatic Animal Health Task Force (Task Force), as directed by the Sub-Committee on Aquaculture, is to draft a national aquatic animal health plan. This element will provide an outline which contains critical elements of the plan and describes how each of the chapters will be written.

METHOD: Discussions from stakeholder meeting and meetings of the Task Force will be used as the basis for creating a draft outline. Once the outline has been approved by the Executive Committee, work will commence on writing the chapters of the plan. The lead authors will be responsible for writing the chapters in a timely fashion utilizing a variety of resources and references to accomplish their tasks. It is anticipated by the lead authors that the complete process of writing, review, and approval of the plan will take approximately two years and use about 0.67 of an FTE for each author during the two year period, not including time of stakeholders and the rest of the Task Force.

SCHEDULE:

Inform the Executive Committee of plan outline and approach to writing plan.	4/23/03
Executive Committee approves draft outline, endorses approach to writing plan, and supports time lines and resources to accomplish project.	4/23/03
Work commences by lead authors on writing plan.	5/1/03

SUCCESS CRITERIA: Executive Committee endorses outline, approach for the development of a draft NAAHP, and commits to time and resources needed to complete project.

ELEMENT 2.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Plan introduction, rationale, process, and definitions
LEADERS: Kevin Amos and Jill Rolland
QA REVIEWER: FEC

OBJECTIVE: The purpose of this element is to write the introductory chapters of the plan which include rationale, process for plan development, and definitions (Chapters 1 and 2).

BACKGROUND: Planning documents need introductory remarks which explain why the plan is being created (rationale), the economic value of aquaculture in the United States, impact of diseases on aquaculture, general principles used as guidance in writing the plan, and the expected outputs and outcomes when the plan is implemented. The plan also needs common terms of reference for explanatory and consistency of the document. These common terms are found in the "definitions" chapter. Completing this element will result in Chapters 1 and 2 of the NAAHP.

METHOD: Lead authors will use the mission statement of the Task Force, input obtained at stakeholder meetings, aquaculture production statistics, and material from other similar documents published by other countries and/or organizations.

SCHEDULE:

Drafts of Chapters 1 and 2 submitted to Task Force for review	7/30/03
Task Force completes review and returns to authors for editing	8/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	9/30/03
Comments due from stakeholders	10 /30/03
Authors submit Final draft to Executive Committee for review and approval	11/30/03

SUCCESS CRITERIA: Chapters 1 and 2 of the plan are approved by the Executive Committee by the end of 2003.

ELEMENT 3.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Roles and responsibilities Federal, state, local and tribal governments and private industry
LEADERS: Kevin Amos and Jill Rolland
QA REVIEWER: FEC

OBJECTIVE: This element will define the current roles and responsibilities of Federal, state, and tribal governments and private industry in administering national aquatic animal health regulations and will propose enhanced responsibilities for all entities so as clarify roles and responsibilities of all involved in aquatic animal health and improve the efficiency and effectiveness of the current system.

BACKGROUND: Current authorities of Federal agencies are complex and overlap in jurisdictions. Authorities need to be clarified and simplified wherever possible

METHOD: Lead authors will identify current legal authorities and policies of Federal agencies and propose methods how these authorities might be modified, (for example, via MOUs), so that administration of regulations will be more efficient and effective. Recommendations may be made for new or alternative legal authorities for federal agencies. This completed element will result in Chapter 3 of the plan.

SCHEDULE:

Drafts of Chapters 3 submitted to Task Force for review	8/30/03

Task Force completes review and returns to authors for editing	9/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	10/30/03
Comments due from stakeholders	11/30/03
Authors submit Final draft to Executive Committee for review and approval	12/30/03

SUCCESS CRITERIA: Chapter 3 of the plan is approved by the Executive Committee by January 31, 2004.

ELEMENT 4.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Diseases of concern, criteria and lists

LEADERS: Amos and Rolland
QA REVIEWER: FEC

OBJECTIVE: Develop a list of diseases of concern for aquatic animals.

BACKGROUND: A primary element of any animal health program is the identification of infectious diseases and their causative agents which are economically and biologically important The purpose of this sub-project is to identify those diseases around which this health management plan will be built.

METHOD: Authors will develop criteria and a list of foreign aquatic animal diseases (FAADs) and notifiable aquatic animal diseases (NAADs). Consideration will be given to existing Federal and state regulations, OIE protocols, protocols of the EU, and other relevant international guidelines. Once the diseases are listed consideration will be given to reporting and data recording protocols. This element will result in Chapter 4 of the plan.

SCHEDULE:

Drafts of Chapters 4 submitted to Task Force for review	9/30/03
Task Force completes review and returns to authors for editing	10/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	11/30/03
Comments due from stakeholders	12/30/03
Authors submit Final draft to Executive Committee for review and approval	1/30/04

SUCCESS CRITERIA: Chapter 4 of the plan is approved by the Executive Committee by February 28, 2004.

ELEMENT 5.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Surveillance (objective, overview, and current status in the U.S.)
LEADERS: Amos
QA REVIEWER: FEC

OBJECTIVE: Provide introductory comments on what surveillance is, the purposes of conducting surveillance for certain aquatic animal pathogens, and a review of the current surveillance programs in place in the U.S.

BACKGROUND: An organized surveillance program administered by the competent authorities of a country is the basis by which the health status of animals are identified and health certificates are issued, which in turn enable commerce. A variety of programs are in place today, but not well coordinated under one umbrella.

METHOD: Author will write chapters defining what surveillance is, its importance in developing a health plan, and review surveillance programs in place today. Gaps in existing surveillance programs will be identified.

SCHEDULE:

Drafts of Chapters 5.0 submitted to Task Force for review	10/30/03
Task Force completes review and returns to authors for editing	11/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	12/30/03
Comments due from stakeholders	1/30/04
Authors submit Final draft to Executive Committee for review and approval	2/30/04

SUCCESS CRITERIA: Chapter 5.0 is completed and approved on schedule

ELEMENT 5.3

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Surveillance methodology
LEADERS: Amos
QA REVIEWER: FEC

OBJECTIVE: Design a general surveillance program for the United States

BACKGROUND: The current surveillance program in place, as discussed in element 5.0, is inadequate to meet our national and international needs. This element will propose new surveillance methodology.

METHOD: Authors will consider the OIE model and programs of other countries in crafting a surveillance program which meets the needs of aquaculturists in the U.S.

SCHEDULE:

Drafts of Chapters 5.3 submitted to Task Force for review	10/30/03
Task Force completes review and returns to authors for editing	11/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	12/30/03
Comments due from stakeholders	1/30/04
Authors submit Final draft to Executive Committee for review and approval	2/30/04

(This element will be drafted in concert with Element 5.0)

SUCCESS CRITERIA: Chapter 5.3 is completed and approved the Executive Committee on schedule

ELEMENT 5.4

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Laboratory methodology
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Identify the approved laboratory protocols by which pathogen testing will take place.

BACKGROUND: Many different laboratory methodologies are used today throughout the United States for testing for FAADs, NAADs, and pathogens of regional significance. The protocols found in the OIE Diagnostic Manual and the American Fisheries Society "Bluebook" are the standards for most inspections. In some states, the "Bluebook" is the legally required methodology while a variety of comparable methods, including OIE standards, are required by foreign countries receiving exports from the U.S. It is in the best interests of the U.S. to develop one set of protocols for imports and interstate commerce in the U.S. and also recommend that the same standards be used by foreign countries requesting products from the U.S.

METHOD: Using the AFS "Bluebook" as a starting point, draft a set of standard laboratory methodologies that are equivalent to OIE methods and the AFS "Bluebook" and that are endorsed by the Federal agencies and stakeholders, including the American Fisheries Society and the American Veterinary Medical Association. This process would require active participation by the Task Force, AFS, AVMA, and other relevant professional fish health organizations in the United States.

SCHEDULE:

Drafts of Chapters 5.4 submitted to Task Force for review	12/30/03
Task Force completes review and returns to authors for editing	1/30/04
Authors incorporate edits and submit to JSA/stakeholders for comment	2/30/04
Comments due from stakeholders	3/30/04
Authors submit Final draft to Executive Committee for review and approval	4/30/04

SUCCESS CRITERIA: Laboratory methodologies, include mechanism to keep procedures current, is adopted by the Executive Committee within the scheduled time.

ELEMENT 5.5

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Accredited personnel and health officials
LEADERS: Amos
QA REVIEWER: FEC

OBJECTIVE: Identify the types of health professionals and officials needed to implement the national aquatic animal health plan, the credentials necessary for the professionals, and a process to officially recognize Federally-approved accredited/approved professionals.

BACKGROUND: Historically (since the early 1970's), the American Fisheries Society, Fish Health Section, has had a program which recognizes and accredits professionally competent individuals in the field of aquatic animal health . More recently, licensed and qualified veterinarians are playing an increasing and significant role in the delivery of animal health services. It is necessary to establish a program which recognizes competent professionals and defines the roles of individuals with different types of training. It is also necessary to define the roles of Federal government officials who will be administering this health program.

METHOD: Consideration will be given to the needs of public, private, and tribal aquaculture for the different types of aquatic animal health professionals. This evaluation will be done in close coordination with our stakeholders to include private industry, public resource managers, and the primary professional organizations, including AFS and AVMA. A plan will be developed which identifies short and long-term needs for aquatic animal health professionals, education and training required for these professionals to practice their trade, and methods to implement this plan not only Federally, but on a state-to-state basis as well.

SCHEDULE:

Draft of Element 5.5 submitted to Task Force for general consideration	12/03
Task Force completes review and returns comments to authors	1/04

Task Force representatives hold a workshop with key stakeholders - representatives of organizations which represent professionals (AFS, AVMA) to work through and attempt to reach consensus on the draft chapter. 2/04
Revised Chapter re-submitted to Task Force for consideration 3/04
Authors submit Final draft to Executive Committee for review and approval 4/04

SUCCESS CRITERIA: Element 5.5 approved by stakeholders and Executive committee within scheduled time line.

ELEMENT 5.6

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Laboratory approval
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Identify criteria and protocol for laboratories conducting testing for FAADs and NAADs to be approved by the competent authorities.

BACKGROUND: Historically, laboratories conducting testing for aquatic animal pathogens, have not been officially recognized by the Federal government. In recent years, APHIS has instituted a laboratory approval process adapted from the one they administered for terrestrial animals.

METHOD: Examine existing laboratory approval models and adopt one for the NAAHPS.

SCHEDULE:
Drafts of Element 5.6 submitted to Task Force for review 12/30/03
Task Force completes review and returns to authors for editing 1/30/04
Authors incorporate edits and submit to JSA/stakeholders for comment 2/30/04
Comments due from stakeholders 3/30/04
Authors submit Final draft to Executive Committee for review and approval 4/30/04

SUCCESS CRITERIA: Element 5.6 of the plan is approved by the Executive Committee by May 31, 2004.

ELEMENT 5.7

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Health certificates
LEADERS: Amos and Rolland
QA REVIEWER: FEC

OBJECTIVE: Develop a standardized aquatic animal health certificate that can be utilized by the Federal authorities, state or tribal entities for the purpose of documenting the health status of an aquatic animal population and enable international and interstate commerce. Identify areas of responsibility for issuing health certificates.

BACKGROUND: There are many different types of health certificates in use in the Untied States by Federal, state, and tribal jurisdictions. APHIS is currently utilizing a modified terrestrial animal health certificate for the export of live aquatic animals. FWS utilizes another format for a certificate to meet the needs of Title 50 when importing salmonids into the U.S. The OIE has a recommended format and each state that conducts health inspections also has its own personalized document. The existence of many styles of certificates and their associated inconsistencies result in confusion, not only by foreign and domestic health officials which attempt to interpret the certificates, but also confusion among health specialists and aquaculturists involved in the process. Another aspect of health certificates is the identification of Federal, state, or private professionals/officials acceptable and appropriate to issue certificates. While an MOU is in the process of being developed between Federal agencies for the issuance of export health certificates for farmed and wild aquatic animals, in order to be consistent with WTO rules, it is incumbent upon the U.S. that import and interstate commerce protocols (including the issuance of health certificates) are consistent.

METHOD: The Task Force will implement in the near term an MOU which identifies the role of Federal agencies in the issuance of export health certificates and the format for said certificate. The purpose of this element of the plan is to examine the possibility of a new and improved model certificate that could be utilized by all aquatic animal health officials in the U.S., regardless of government association. The new model will be clear and concise and simplified to the degree possible for both the party requesting the certificate and the official issuing it. In designing this new and improved model, consideration will be given to a variety of models already in use by U.S. Federal agencies, OIE, other countries, states, and tribes. The goal is to develop one, consistent format for a health certificate, with some level of detail for diseases specific to species groups (finfish, molluscan, crustacean).

SCHEDULE:

Interim export health certificate and process approved by Executive Committee	4/03
Drafts of Element 5.7 submitted to Task Force for review	11/30/03
Task Force completes review and returns to authors for editing	12/30/03

Authors incorporate edits and submit to JSA/stakeholders for comment	1/30/04
Comments due from stakeholders	2/30/04
Authors submit Final draft to Executive Committee for review and approval	3/30/04

SUCCESS CRITERIA: An improved model aquatic animal health certificate and issuing process is approved by the Executive Committee for NAAHP on schedule.

ELEMENT 6.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Disease prevention, control, and management
LEADERS: Amos and Rolland
QA REVIEWER: FEC

OBJECTIVE: Provide an overview of general principles of aquatic animal disease prevention, control, and management and use it as an introductory chapter to the other elements in Section 6. Review existing federal, state, and tribal regulations for the prevention of introduction or spread of aquatic animal diseases identified in Element 4 and utilize information to develop elements 6.1. through 6.6 . Details for specific diseases will be addressed in elements 6.5 and 6.6.

BACKGROUND: The NAAHP will assist in providing for the safe and effective intrastate, interstate, and international commerce of aquatic animals. It is integral to the plan to consider approaches which will prevent the introduction of exotic pathogens to zones previously uninfected and limit the spread of significant pathogens enzootic to the United States.

METHOD: The authors will review existing regulations and policies of Federal, state, and tribal entities which attempt to restrict the introduction and/or spread of important aquatic animal pathogens. The focus of the review will be on intrastate and interstate commerce and existing methodologies used to prevent the spread of pathogens.

SCHEDULE:

Review existing disease prevention, management, and control documents	9/30/03
Drafts of Element 6.0 submitted to Task Force for review	11/30/03
Task Force completes review and returns to authors for editing	12/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	1/30/04
Comments due from stakeholders	2/30/04
Authors submit Final draft to Executive Committee for review and approval	3/30/04

SUCCESS CRITERIA: Element 6.0 approved by Executive Committee on schedule, by 4/30/04.

ELEMENT 6.1

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Zonation
LEADERS: Amos
QA REVIEWER: FEC

OBJECTIVE: Explain the use of "zones" to manage aquatic animal diseases and draft a plan that could be applied in the United States.

BACKGROUND: Zonation is an accepted principle for the management of aquatic animal diseases. A chapter of the OIE Code is dedicated to the use of zones for disease management. Historically, states and the U.S. as a whole, have used zones to the extent of existing political borders. The boundaries for aquatic pathogens should be based on watersheds, estuaries, and marine areas, not political borders

METHOD: The authors will develop a plan to identify zones for aquatic animal diseases based on historical information and ongoing disease surveillance.

SCHEDULE:

Draft of Element 6.1 submitted to Task Force for review	11/30/03
Task Force completes review and returns to authors for editing	12/30/03
Authors incorporate edits and submit to JSA/stakeholders for comment	1 /30/04
Comments due from stakeholders	3/30/04
Authors submit Final draft to Executive Committee for review and approval	4/30/04

SUCCESS CRITERIA: Element 6.1 of the plan is approved by the Executive Committee by June 1, 2004.

ELEMENT 6.2

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Commerce of aquatic animals (Export, import, interstate)
LEADERS: Amos and Rolland
QA REVIEWER: FEC

OBJECTIVE: Identify the international obligations of the United States when conducting commerce in live aquatic animals and develop protocols which enable the U.S. to meet its obligations.

BACKGROUND: Aquaculture relies upon the ability to move live aquatic animals nationally and internationally. Many rules to regulate the commerce of aquatic animals exist in the U.S. Some are promulgated by Federal agencies and others by state agencies. None were formulated with the idea of a comprehensive and uniform approach. To improve the efficiency of conducting commerce and meet our international obligations to OIE and WTO, a uniform and consistent procedures must be developed and followed by all Federal regulatory entities.

METHOD: In consideration of other elements of this plan (the diseases of concern - Element 4, and Surveillance - Element 5), OIE, WTO, and protocols already in place, a plan will be drafted which will explain a process by which live aquatic products can be efficiently allowed to be imported, exported, and transported interstate while achieving other objectives of this plan such as the protection of cultured and wild aquatic animals. Components of this chapter will include process to move products, officials who need to be involved, and paper work/certificates necessary to accompany the products. Interim protocols may be implemented by appropriate Federal agencies to meet the urgent need to address this issue. Parts of Element 6.2 may be similar or identical to the interim protocols.

SCHEDULE:

Drafts of Element 6.2 submitted to Task Force for review	3/30/04
Task Force completes review and returns to authors for editing	4/30/04
Authors incorporate edits and submit to JSA/stakeholders for comment	5/30/04
Comments due from stakeholders	7/30/04
Authors submit Final draft to Executive Committee for review and approval	8/30/04

SUCCESS CRITERIA: Executive Committee reviews and approves this element by 9/30/04

ELEMENT 6.3

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Site health management
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Draft a chapter of the plan which explains the principles of bio-security and sanitation for aquaculture and the necessity of implementing these programs in order to have safe and efficient aquatic animal health.

BACKGROUND: An important aspect of preventing animal health problems and infectious disease outbreaks is the inclusion of a bio-security and sanitation plan for the

operation of animal culture facilities. A successful national plan must identify general standards and performance measures for aquatic farms.

METHOD: The authors will review material from existing Federal and state plans, OIE, and foreign countries and draft a model plan applicable for the public and private aquaculture operations in the U.S.

SCHEDULE:

Review existing resource documents for applicability to this plan	11/30/03
Drafts of Element 6.0 submitted to Task Force for review	12/30/03
Task Force completes review and returns to authors for editing	2/30/04
Authors incorporate edits and submit to JSA/stakeholders for comment	3/30/04
Comments due from stakeholders	5/30/04
Authors submit Final draft to Executive Committee for review and approval	6/30/04

SUCCESS CRITERIA: Element 6.3 approved by Executive Committee on schedule, by 4/30/04.

ELEMENT 6.4

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Response to finding FAAD or NAAD
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Identify the general considerations and response plan to the finding of a foreign aquatic animal disease (FAAD) and/or a notifiable aquatic animal disease.

BACKGROUND: The finding of a suspect FAAD or NAAD puts the aquaculture industries in the U.S. in jeopardy. The timely and appropriate response to a finding of a FAAD or NAAD is dependant on having contingency plans in place ready to implement immediately. While a few diseases have such plans for select regions, generally, there are not adequate contingency plans for aquatic animal diseases that encompass and are consistent throughout the U.S.

METHOD: Draft a chapter for the plan which gives an explanation of the types of actions and the reasons for the actions to rapidly identify, confirm, contain, and if appropriate, eradicate a FAAD or NAAD. This element will inform on the general approaches to dealing with important aquatic diseases. Disease-specific action plans will be developed as part of Elements 6.5 and 6.6 of NAAHP.

SCHEDULE:

Review existing documents which contain principles for managing a FAD in the U.S., and documents form other countries and OIE Code	1/30/04
Draft of Element 6.4 submitted to Task Force for review	3/30/04
Task Force completes review and returns to authors for editing	5/30/04
Authors incorporate edits and submit to JSA/stakeholders for comment	6/30/04
Comments due from stakeholders	8/30/04
Authors submit Final draft to Executive Committee for review and approval	9/30/04

SUCCESS CRITERIA: Element 6.4 approved by Executive Committee on schedule, by 10/30/04.

ELEMENT 6.5

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: FAAD Program Standards
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Review existing Federal, state, and tribal regulations and policies for the prevention of introduction or spread of foreign aquatic animal diseases (FAADs) which were identified in Element 4.0 and utilize information to develop a component of the NAAHP which addresses the prevention and response to finding of a FAAD.

BACKGROUND: The NAAHP will assist in providing safe and effective interstate and international commerce of aquatic animals. It is integral to the plan to identify approaches which will prevent the introduction of exotic pathogens and to have in place control protocols when an FAAD outbreak occurs. The ability to respond in a timely and sufficient manner to a FAAD, due to having a program already in place, will be key to reducing economic losses and protecting aquatic animals. In order to be effective in dealing with a FAAD, it is necessary that responses to FAADs are consistent across political boundaries.

METHOD: The NAAHP Task Force will review existing regulatory structures dealing with foreign aquatic animal diseases (or those considered exotic to a respective zone) in the United States and foreign countries and consider guidance offered in the OIE Code. Focus will be on actions to prevent introduction and emergency responses when they are found. Draft program standards will be drafted for the FAADs, similar to the one drafted in Maine for ISA. Representatives from the major aquatic animal species groups affected by the FAADs will be brought together in a workshop setting to review and comment on the program standards. The outcome of the workshops will be a draft Element 6.5 for final review and acceptance by the Task Force for inclusion in the plan. Tentative agreement on the list of

FAADs in Element 4 must be reached prior to commencing work on this element.

SCHEDULE:

Agreement reached by the Task Force on the list of FAADs	9/03
Existing regulations and policies dealing with FAADs are reviewed by authors	12/03
Draft disease-specific program standards are presented to Task Force for review	5/04
Comments received from Task Force and draft revised	6/04
Workshops are held with invited representatives affected by disease-specific program standards	7 & 8/04
Taking into consideration input from workshops, program standards re-drafted	9/04
Program Standards are broadly circulated to stakeholders for comment	10/04
Comments incorporated into final drafts submitted to Task Force	11/04
Final draft standards submitted to Executive Committee	12/04

SUCCESS CRITERIA: Program Standards for FAADs approved by Executive Committee 1/05

ELEMENT 6.6

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: NAAD Program Standards
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Review existing Federal, state, and tribal regulations and policies for the prevention of introduction or spread of notifiable aquatic animal diseases (NAADs), not including FAADs already addressed in Element 6.5, which were identified in Element 4.0 and utilize information to develop a component of the NAAHP which addresses the prevention and response to finding of a NAAD.

BACKGROUND: The NAAHP will assist in providing safe and effective interstate and international commerce of aquatic animals. It is integral to the plan to identify approaches which will prevent the introduction or spread of notifiable pathogens and to have in place control protocols when an NAAD outbreak occurs. The ability to respond in a timely and sufficient manner to a NAAD, due to having a program already in place, will be key to reducing economic losses and protecting aquatic animals. In order to be effective in dealing with a NAAD, it is necessary that responses to NAADs are consistent across political boundaries.

METHOD: The NAAHP Task Force will review existing regulatory structures dealing with notifiable aquatic animal diseases and consider guidance offered in the

OIE Code. Focus will be on actions to prevent further spread of a NAAD and emergency responses when they are found. Draft program standards will be drafted for the NAADs, similar to the one drafted in Maine for ISA. Representatives from the major aquatic animal species groups affected by the NAADs will be brought together in a workshop setting to review and comment on the program standards. The outcome of the workshops will be a draft Element 6.6 for final review and acceptance by the Task Force for inclusion in the plan. Tentative agreement on the list of FAADs in Element 4 must reached prior to commencing work on this element.

SCHEDULE:

Agreement reached by the Task Force on the list of NAADs	9/03
Existing regulations and policies dealing with NAADs are reviewed by authors	12/03
Draft disease-specific program standards are presented to Task Force for review	5/04
Comments received from Task Force and draft revised	6/04
Workshops are held with invited representatives affected by disease-specific program standards	7 & 8/04
Taking into consideration input from workshops, program standards re-drafted	9/04
Program Standards are broadly circulated to stakeholders for comment	10/04
Comments incorporated into final drafts submitted to Task Force	11/04
Final draft standards submitted to Executive Committee	12/04

SUCCESS CRITERIA: Program Standards for NAADs approved by Executive Committee 1/05

ELEMENT 7.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Pilot test the NAAHP
LEADERS: Entire Task Force
QA REVIEWER: FEC

OBJECTIVE: Pilot test the draft NAAHP in a variety of scenarios which would closely mimic those likely to be encountered by aquatic animals cultured in the U.S. Use results of the pilot testing to modify and improve the draft NAAHP.

BACKGROUND: The NAAHP is designed to assist in providing for the safe and effective intrastate, interstate, and international commerce of species reared in the U.S. or those to be imported into the U.S. While the project provides for the development of a draft plan, it is unknown if there are fatal flaws that need to be addressed or if there are any improvements to be made before the program could be successfully implemented in real-life scenarios. In order for the NAAHP to accomplish its goal, i.e., safe and effective commerce, it is necessary to pilot test the draft NAAHP with scenarios that can be reasonably anticipated to occur in one or more geographical regions and

multiple species groups in the United States. By pilot testing, an evaluation can be made of the strengths and weaknesses of the NAAHP and modifications can be made accordingly.

METHOD: The Task Force will draft a number of scenarios which could be used to test the NAAHP. Scenarios to be considered may include:

- moving live products to and from inland waters of an adjoining state.
- moving live products from a foreign country into the U.S.
- occurrence of a disease event caused by a FAAD or a NAAD in wild or cultured aquatic animals and associated response.
- accredited laboratory producing results not repeatable in another accredited laboratory.
- other scenarios as developed at workshops, by stakeholders, or the Task Force .

SCHEDULE:

The Task Force develops a list of scenarios which might be used to pilot test the draft NAAHP.	2/05
Solicit additional scenarios from stakeholders.	
After review by FEC, initiate pilot testing.	3/05
Results of pilot testing submitted to FEC for consideration.	4/05
Modifications from pilot testing will be incorporated into the draft final NAAHPS	5/05
The final model NAAHP ready for implementation	

SUCCESS CRITERIA: Results of pilot testing reported to Task Force and modifications made, as necessary, to finalize the NAAHP.

ELEMENT 8.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Research and development
LEADERS: Rolland
QA REVIEWER: FEC

OBJECTIVE: Review existing Federal programs providing funding for research and development in the area of aquatic animal diseases, in combination with the list of diseases of concern in Element 4.0, and utilize this information to develop a R & D priorities component of the NAAHP.

BACKGROUND: Currently, many different Federal agencies fund aquatic animal health research. While some coordination may occur between agencies in setting priorities, this evaluation is not being done in the context of NAAHP or the country as a whole.

A shortage of research dollars necessitates the available resources to be directed towards highest needs as identified in this plan.

METHOD: The NAAHP Task Force will review existing sources and processes for Federal funding for aquatic animal health research. The Task Force will develop a process to ensure cross-agency coordination occurs and addresses the priority needs for aquatic animal health as identified in the element of this NAAHP and develop a strategy to insure funding is provided for the priority projects.

SCHEDULE:

Initiate review of existing mechanisms for identifying, prioritizing, and funding Federally-supported aquatic animal health research.	2/04
If existing process found inadequate to address needs as identified in NAAHP, the Task Force will propose a new model to identify and prioritize research	5/04
JSA and stakeholders provided new model for comment	6/04
Comments incorporated by Task Force into model	9/04
Final draft submitted to Executive Committee and JSA for review	10/04

SUCCESS CRITERIA: Element 8 of the NAAHP is approved by the Executive Committee 12/04

ELEMENT 9.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Education and training
LEADERS: Amos and Rolland
QA REVIEWER: FEC

OBJECTIVE: Provide the necessary education and training programs for aquatic health professionals, government officials, aquaculturists, and the general public, to ensure the successful implementation of the NAAHP.

BACKGROUND: A successful national aquatic animal health control program requires appropriately educated health professionals to meet today's and future needs. A long term strategy needs to be developed to ensure the availability of the types of professionals identified in Element 5. Training of health professionals, government officials, and the aquaculturists is an on-going process to help ensure that the NAAHP is implemented as intended and to make people aware of the latest technical advancements as they become known. Currently, an array of education and training opportunities are provided by universities, community colleges, veterinary schools, Federal agencies and professional organizations. While these institutions are invaluable for the services they provide, the do not necessarily reflect the needs of this plan or a long-term vision of the needs of aquaculture in the United States.

METHOD: Convene a workshop with representatives from Federal agencies, academia, professional organizations, and key stakeholders from public, private, and tribal aquaculture and develop a short and long-term education and training program to meet the needs as defined in this program and in the context of the health professionals identified in Element 5. Use information from workshops and feedback from stakeholders to draft an education and training plan.

SCHEDULE:

Hold workshop with invited participants	Fall, 2004
Craft workshop discussions into a plan and circulate to stakeholders.	12/04
Use input to prepare final draft plan to share with FEC and JSA	2/05

SUCCESS CRITERIA: Training and education Element 8.0 approved by FEC by end of March, 2005.

ELEMENT 10.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Outreach and awareness
LEADERS: Amos
QA REVIEWER: FEC

OBJECTIVE: Ensure mechanisms are in place to provide a transparent process and all interested parties are kept abreast of the progress of the development and implementation of the NAAHP.

BACKGROUND: The lack of outreach to stakeholders and having them aware of the progress of NAAHP could result in many negative outcomes, such as lack of their support of the NAAHP. The Task Force must be successful in having stakeholder and the general public aware of NAAHP and what it is doing to ensure effective and efficient aquaculture while protecting our natural resources. Currently, the perception of many citizens of the U.S. is that aquaculture is detrimental to the environment. This mis-information must be eliminated and public must be made aware of the science-based facts, otherwise, aquaculture will continue to find obstacles for its development.

METHOD: The Task Force needs to consult with outreach experts from their respective Federal agencies. A plan must be developed that provides accurate and timely information to stakeholders and the general public. It is important that this plan be developed and implemented in the very near future so as to inform the public and obtain their support for the development and implementation of this plan. The Task Force needs to identify a "communications officer" within

its ranks who will prepare and deliver info to the agencies and public (after review of Task Force). The Task Force will also make use of professional meetings and other fora to provide oral presentations on the progress of the NAAHP.

SCHEDULE:

Identify outreach experts within respective agencies and invite to Task Force meeting. Explain the objectives and timelines of the project. Ask the experts to cooperate in the development of an awareness plan	6/03
Outreach experts deliver plan to Task Force	8/03
Identify member of Task Force who will be lead in providing communications on progress and outputs of Task Force	6/03

SUCCESS CRITERIA: Outreach and awareness plan submitted to Task Force for review and approval 9/03

ELEMENT 11.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Plan implementation
LEADERS: Executive Committee
QA REVIEWER:

OBJECTIVE: Identify the resources and strategies to implement the plan

BACKGROUND: Monetary and human resources will be required to develop and implement NAAHP. It is unknown what resources are available now and in the future from the Federal members of the Task Force. To be successful in this endeavor (provide the deliverables in a timely fashion), the Executive Committee must develop a plan and budget to ensure resources needed are available. Significant expenses include salaries and travel for the lead authors, funds to support meetings of the Task Force, funds to support critical workshops with stakeholders, and costs to implement all the programs as outlined in the plan. This is a long term process, however, in the near term, funds must be made available to ensure project proceeds.

METHOD: Federal Executive Committee (FEC) evaluates resources requested by the Task Force and communicates the need to their respective administrators. Determinations will be made by the FEC a s to the expectations of each agency.

SCHEDULE:

FEC receives report from lead authors on expected cost of plan development	6/03

SUCCESS CRITERIA: Resources obtained to develop and implement plan on established time lines.

ELEMENT 12.0

ENTITY: National Aquatic Animal Health Task Force
ACTIVITY: National Aquatic Animal Health Plan

SUB-PROJECT: Evaluation of NAAHP meeting its objectives
LEADERS: FEC
QA REVIEWER:

OBJECTIVE: Develop a process to determine if the NAAHP, as implemented, is meeting its objectives. If not meeting its objectives, revise as needed.

BACKGROUND: Once the plan is developed, goals established, and the plan is implemented, a mechanism needs to be developed which can evaluate whether or not the NAAHP is meeting its identified measurables.

METHOD: Development of the evaluation program will be an evolving process. It is not urgently needed until agencies move from plan development to implementation and operation.

SCHEDULE: Evaluation plan needs to be in place for each element as they are implemented. Some elements due to urgent concerns, may be implemented before completion of NAAHP in its entirety. Even so, it would be wise to have an evaluation component for each element, regardless of when it is put into operation.

SUCCESS CRITERIA: Evaluation program in place and utilized.

Fish Health Newsletter – Editorial Policy

The *Fish Health Newsletter* is a quarterly electronic publication of the Fish Health Section of the American Fisheries Society and is available for downloading in Adobe pdf file format. Submissions on any topic of interest to fish health specialists and preliminary case reports are encouraged with the understanding the material is not peer- reviewed. Abstracts submitted to the *Journal of Aquatic Animal Health* are also encouraged. Submissions must

be formatted in Microsoft Word, WordPerfect, or Rich Text Format, and can be sent by electronic mail or via 3.5" floppy disk to the editor's address below. **Graphics files should be sent separately in jpeg format.**

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