

Veterinary Services

Aquaculture/ Aquatic Animal Health Program

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Program Activities Overview

(as described in FY15 Business Plan https://www.aphis.usda.gov/animal_health/downloads/vsbsp/5_year_business_plan_aquaculture.pdf)

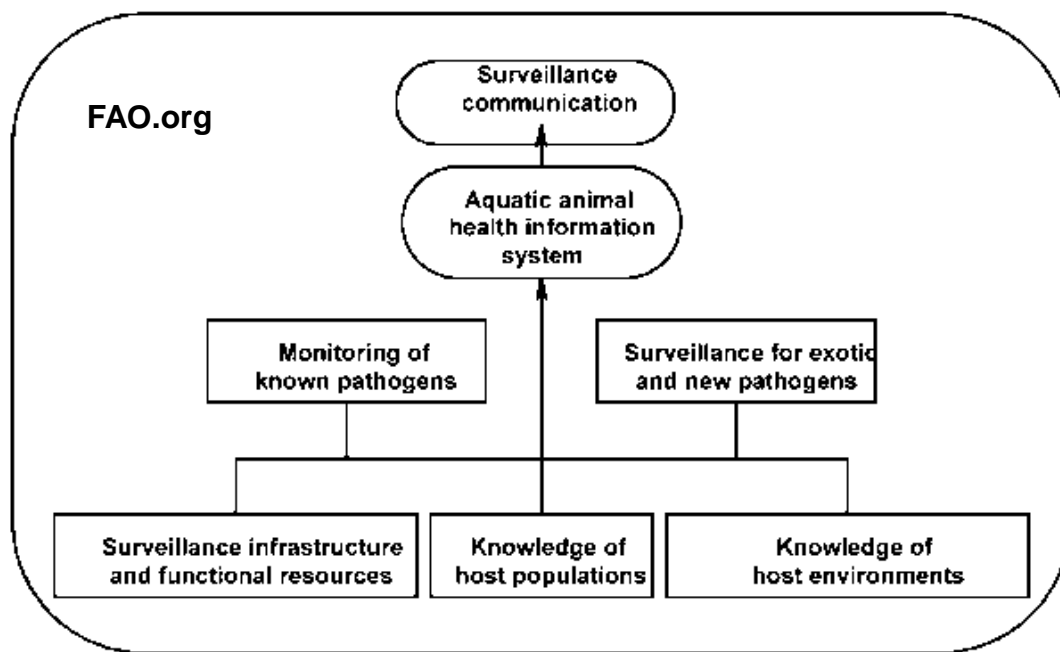
- National Aquatic Animal Health Plan (NAAHP)
- Comprehensive and integrated surveillance (CIS)
- Import/Export update
- Program Projects
- Commercial Aquaculture Health Program Standards (CAHPS)

National Aquatic Animal Health Plan

- Renewal of two MOUs with USFWS and NOAA NMFS
 - NAAHP commitment
 - Export coordination
- Aquatic Laboratory Network
 - Phase 1 completed
- Commercial Aquaculture Health Program Standards
- SCS/Core One Database
 - Database structure completed for aquatic animal entries

Comprehensive and Integrated Surveillance (CIS) - Aquaculture

- CIS plan for aquaculture completed
- Elements incorporated into CAHPS



Import/Export Update

- Electronic certificates
 - Veterinary Export Health Certificate System (VEHCS) pilot completed
- One certificate exists for ornamental fish being exported to Canada
- Discussions on going for complete electronic certificates

Aquaculture Program Projects

- Multi-agency ISAV surveillance in the Pacific NW
 - Sample collection completed
 - All tests negative to date
- East Coast Regional Shellfish Management
- Aquaculture Ag-Econ
 - Bait/sport fish survey



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COMMERCIAL AQUACULTURE PROGRAM STANDARDS (CAHPS)

CAHPS Concept

- Model framework for aquatic animal health
- NAAHP implementation - for aquaculture
- Science-based
- Needs-based (voluntary)
- Strengthened through State, Tribal, and Federal collaboration
 - Available to private and public aquaculture

Domestic Aquaculture Challenges

- Global concerns
 - Foreign animal disease
 - Emerging animal disease
 - Competition

- Movement of live animals
 - Interstate
 - International

- NAAHP implementation

Aquaculture

- **Aquaculture** - The farming of aquatic animals with some sort of intervention in the rearing or farming process
 - **Commercial Aquaculture** - The business of farming aquatic animals for sale or trade, with some sort of intervention in the rearing or farming process
 - Culture and production of healthy animals for sale and trade
 - Demonstrate health status of animals to minimize obstacles for animal movement
 - Get more trade for less production costs

Principles of CAHPS

1. **Aquatic animal health team**
 - The knowledge & skills
2. **Risk evaluation**
 - The science & method
3. **Surveillance**
 - The strategy & approach
4. **Investigation and reporting**
 - The process & protocols
5. **Response**
 - What we do when things happen

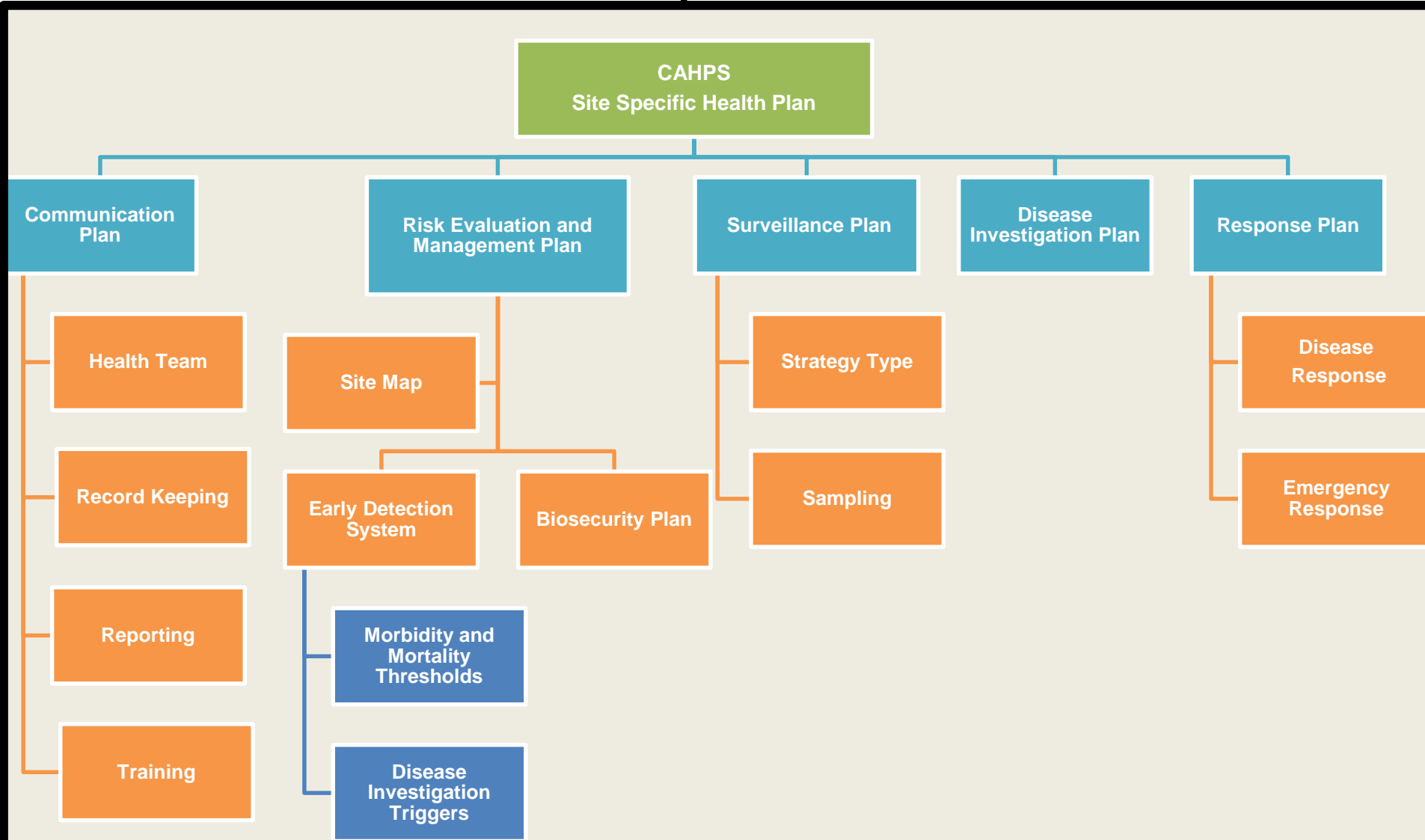




Aquatic Animal Health Team

- Producer/manager, veterinarians, AFS certified professionals, laboratorians, extension agents & other subject matter experts
- RELATIONSHIP
- Assists with Site-Specific Health Plan

CAHPS Site Specific Health Plan



Risk Evaluation

- Risk Identification
 - Species specific pathogens of concern and nearby species
 - Identify pathways- where, how and when
- Risk Characterization
 - Degree of risk
 - Scope of risk
 - Impact of risk- exotic vs. endemic pathogens

Risk Management

- Risk Mitigation
 - Strategies
 - Early disease detection systems (EDDS)
 - Training and management
 - Establish site specific thresholds
 - Biosecurity
 - How to mitigate risks

Surveillance

- Define purpose and surveillance boundaries
 - Establish disease or pathogen status
 - Establishment, compartment or zone

- Types & Strategies
 - Observational
 - Pathogen specific
 - OIE and/or State specific
 - Detect or refute presence of pathogen
 - Depends on power of diagnostic assays
 - Risk based
 - Systematic collection of data to detect disease or not
 - Can use historical data
 - Probability of pathogen introduction

Investigation & Reporting

- Disease investigation
 - Health team sets mortality/morbidity threshold
 - Determine cause(s) of mortality/morbidity
- Reporting
 - OIE, national and state lists
 - NLRAD
 - Appropriate officials



Response

- Contingency Planning
- Continuity of business
- Pathogen and impact of pathogen
 - Treat? Vaccinate? Depopulate?
- Debrief for lessons learned
 - What went wrong?
 - How to fix

CAHPS and Beyond

- Establishment (E)
 - Single site with lower risk because of surveillance and biosecurity
- Compartment (C)
 - Single site with higher standard of biosecurity and even lower risk
- Zone (Z)
 - Region around site with surveillance partners
 - Claim disease “free” status

Why CAHPS?

- Improve and verify health of commercially farmed aquatic animals
- Demand from international markets and trading partners:
 - Improved aquatic animal disease detection
 - Improved reporting
 - Improved control infrastructure
 - Improved aquatic animal health verification

Impact of Principles

- Animals are lower risk for specific pathogens because of surveillance and biosecurity
- We know what we know because we know it



Potential CAHPS Benefits: Short and Long-term

- Minimize potential for catastrophic infectious diseases of economic significance
- Reduce hurdles for interstate movement of live aquatic animals
- Enable international export of live aquatic animals

CAHPS Outreach and Communication

- Coordinated by NAA and APHIS
- Stakeholder meetings
 - AA, PNFHPC, NWFHFC, AFWA, AVMA, National Assembly, IWG-A, USTFA
- Discussion Groups
 - Bait and sport fish producers, subject matter expert calls

Thank You. Questions?



<http://www.aphis.usda.gov/animalhealth/aquaculture>

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