

Permit No.	Applicant	Receipt of application FEDERAL REGISTER notice	Permit issuance date
156814 .....	David L. Duncan .....	72 FR 39830; July 20, 2007 .....	September 5, 2007.
152774 .....	Eric K. Schnelle .....	72 FR 33242; June 15, 2007 .....	July 26, 2007.
152402 .....	Gary D. Young .....	72 FR 31090; June 5, 2007 .....	August 23, 2007.
154555 .....	Herbert Rudolf .....	72 FR 31601; June 7, 2007 .....	September 5, 2007.
154496 .....	Scott A. Huebner .....	72 FR 33242; June 15, 2007 .....	August 9, 2007.
156806 .....	Donald Thompson .....	72 FR 37795; July 11, 2007 .....	September 5, 2007.
155649 .....	Elizabeth C. Harris .....	72 FR 39829; July 20, 2007 .....	September 6, 2007.
690038 .....	U.S. Geological Survey .....	72 FR 25328; May 4, 2007 .....	August 30, 2007.
071799 .....	Jennifer Miksis-Olds .....	72 FR 39829; July 20, 2007 .....	August 30, 2007.
156394 .....	Raymond Cuppy .....	72 FR 37039; July 6, 2007 .....	September 5, 2007.

Dated: September 21, 2007.

**Lisa J. Lierheimer,**

Senior Permit Biologist, Branch of Permits,  
Division of Management Authority.

[FR Doc. E7-20233 Filed 10-12-07; 8:45 am]

BILLING CODE 4310-55-P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### Issuance of Permits

**AGENCY:** Fish and Wildlife Service,  
Interior.

**ACTION:** Notice of issuance of permits for marine mammals.

**SUMMARY:** The following permits were issued.

**ADDRESSES:** Documents and other information submitted with these applications are available for review, subject to the requirements of the Privacy Act and Freedom of Information Act, by any party who submits a written request for a copy of such documents to: U.S. Fish and Wildlife Service, Division of Management Authority, 4401 North

Fairfax Drive, Room 700, Arlington, Virginia 22203; fax 703/358-2281.

**FOR FURTHER INFORMATION CONTACT:** Division of Management Authority, telephone 703/358-2104.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that on the dates below, as authorized by the provisions of the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 *et seq.*), the Fish and Wildlife Service issued the requested permits subject to certain conditions set forth therein.

#### Marine Mammals

Permit No.	Applicant	Receipt of application FEDERAL REGISTER notice	Permit issuance date
153572 .....	Gregory L. Pope .....	72 FR 31601; June 7, 2007 .....	August 9, 2007.
155528 .....	Michael G. West .....	72 FR 37795; July 11, 2007 .....	September 19, 2007.
156520 .....	Christopher Ring .....	72 FR 39829; July 20, 2007 .....	September 25, 2007.
157475 .....	Philip E. Carlin .....	72 FR 39829; July 20, 2007 .....	September 19, 2007.

Dated: September 28, 2007.

**Lisa J. Lierheimer,**

Senior Permit Biologist, Branch of Permits,  
Division of Management Authority.

[FR Doc. E7-20236 Filed 10-12-07; 8:45 am]

BILLING CODE 4310-55-P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

[1018-AT72]

#### Draft Mosquito and Mosquito-Borne Disease Management Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997

**AGENCY:** Fish and Wildlife Service,  
Department of the Interior.

**ACTION:** Notice.

**SUMMARY:** We propose to establish policy that refuge managers will follow concerning mosquito and mosquito-borne disease management on units of the National Wildlife Refuge System. The National Wildlife Refuge System Administration Act (Administration Act), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act),

provides the Refuge System mission. That mission is to “administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” In addition, each refuge “shall be managed to fulfill the mission of the System, as well as the specific purposes for which that refuge was established.” We cannot fulfill this mission unless we provide consistent direction to refuge managers and manage the Refuge System as a national system. Therefore, we are developing policies to provide refuge managers clear direction and procedures for making determinations regarding wildlife conservation and public uses of the Refuge System and individual refuges. This draft policy describes the process we will follow to determine if and how to manage mosquito populations on lands administered within the Refuge System. We propose to incorporate this policy as part 601, chapter 7 of the Fish and Wildlife Service Manual.

This draft policy states that “we will allow populations of native mosquito species to function unimpeded unless they cause a human and/or wildlife health threat.” While we recognize mosquitoes are a natural component of most wetland ecosystems, we also recognize they may represent a threat to human and/or wildlife health. We may allow management of mosquito populations on Refuge System lands when those populations pose a threat to the health and safety of the public or a wildlife population. This draft policy outlines the procedures refuge managers will follow in planning and implementing mosquito and mosquito-borne disease management within the Refuge System.

**DATES:** Comments must be received by November 29, 2007.

**ADDRESSES:** You may submit comments on this draft policy by mail to Michael Higgins, Biologist, National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia 22203; by fax to 703-358-2248; or by e-mail to [refugesystempolicycomments@fws.gov](mailto:refugesystempolicycomments@fws.gov).

**FOR FURTHER INFORMATION CONTACT:**

Michael J. Higgins, U.S. Fish & Wildlife Service, National Wildlife Refuge System, 177 Admiral Cochrane Drive, Annapolis, MD 21401, telephone: 410-573-4520, fax: 410-269-0832.

**SUPPLEMENTARY INFORMATION:** The Improvement Act amends and builds on the Administration Act (16 U.S.C. 668dd-668ee) and provides an organic act for the Refuge System. It states that the Refuge System mission "is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans." It directs us to manage each refuge to fulfill the Refuge System mission as well as the specific purpose(s) for which the refuge was established. The Improvement Act provides compatibility standards for refuge uses and directs the Secretary of the Interior to "ensure that the biological integrity, diversity, and environmental health of the System are maintained."

We based this draft policy for mosquito and mosquito-borne disease management within the Refuge System on these directives. Effective mosquito control results in the removal of a high percentage of one or more target species, although usually temporarily. In addition, one or more nontarget species may be adversely affected by mosquito control practices. The altered ecological communities that may result can impact biological integrity and diversity through disruptions in food webs and other ecological functions. Therefore, we must carefully evaluate any actions we propose to take.

This draft policy states that "we will allow populations of native mosquito species to function unimpeded unless they cause a human and/or wildlife health threat." While we recognize mosquitoes are a natural component of most wetland ecosystems, we also recognize they may represent a threat to human and/or wildlife health. We may allow management of mosquito populations on Refuge System lands when those populations pose a threat to the health and safety of the public or a wildlife population. This draft policy outlines the procedures refuge managers will follow in planning and implementing mosquito and mosquito-borne disease management within the Refuge System.

The draft policy relies on using scientific principles to identify and respond to public and wildlife health threats from refuge-based mosquitoes.

Health threat categories will be identified based on local conditions and the local history of mosquito-associated health threats. We will use local monitoring data of mosquitoes and disease to determine the current threat level and the corresponding appropriate refuge response. During this process, we will work closely with Federal, State, and/or local public health authorities that have expertise in vector-borne diseases and State fish and wildlife agencies in developing mosquito management plans prior to an outbreak of mosquito-borne disease and in determining when human or wildlife health threats or high risk human health situations exist.

Refuges with current mosquito control or mosquito monitoring programs must prepare a mosquito management plan. In addition, refuges where a State or local public health agency identifies a potential health threat must prepare a mosquito management plan. A potential health threat does not imply a need to manage mosquitoes on a refuge, but it does trigger the planning process for monitoring and potential management. Because not all refuges are located in areas where mosquito management is an issue, the draft policy does not require every refuge to prepare a mosquito management plan. As a result, there may be cases where an outbreak of mosquito-borne disease occurs at or near a refuge that has not developed such a plan. We included a section that describes the procedures we would follow in such high health risk situations.

The draft policy includes procedures to follow to reduce threats from refuge-based mosquitoes. These procedures follow an integrated pest management approach and include nonpesticide actions that may be taken to reduce mosquito production.

The purpose of this policy is to provide refuge managers with a process to follow in planning and implementing mosquito and mosquito-borne disease management. Each refuge manager must consider the refuge establishing purposes as well as local conditions when following these procedures.

**Comment Solicitation**

We seek public comments on this draft mosquito and mosquito-borne disease policy and will consider comments and any additional information received during the 45-day comment period. You may submit comments on this draft policy by mail to Michael Higgins, Biologist, National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia

22203; by fax to 703-358-2154; or by e-mail to [refugesystempolicycomments@fws.gov](mailto:refugesystempolicycomments@fws.gov). Please submit Internet comments as an ASCII file, avoiding the use of special characters and any form of encryption. Please also include "Attn: 1018-AT72" and your full name and return mailing address in your Internet message. If you use only your e-mail address, we will consider your comment to be anonymous and will not consider it in the final rule. If you do not receive a confirmation from the system that we have received your Internet message, contact us directly at (703) 358-2036. You may hand deliver comments to the address listed above.

Our practice is to make comments, including names and addresses of commenters, available for public review during regular business hours. Individual commenters may request that we withhold their home address from the record, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the record a commenter's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all comments from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

**Required Determinations***Regulatory Planning and Review (Executive Order (E.O.) 12866)*

In accordance with the criteria in Executive Order 12866, this document is not a significant regulatory action and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget (OMB) makes the final determination under E.O. 12866.

(1) This document would not have an annual economic effect of \$100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government. A brief assessment to clarify the costs and benefits associated with this proposed policy follows.

*Proposed Change*

Existing Departmental and refuge policies do not address mosquito management in detail and do not provide standard procedure for determining what measures to take on refuges regarding management of

mosquito and mosquito-borne disease. The draft policy provides a standard process to follow and criteria to consider when making such decisions. The draft policy would provide for consistency in protecting wildlife and habitats and in making provisions for protecting public health from mosquito-borne health threats.

This draft policy would affect refuges that have prevalent mosquito populations. The variation from status quo at a refuge will depend on how different current procedures at that refuge are from the procedures that would be followed under a standardized process. In addition, local conditions vary from year to year, and the responding management actions must also vary. Based upon past implementation of mosquito control, we expect affected refuges to include those located in California, Washington, Oregon, Idaho, Texas, Michigan, South Carolina, Florida, Louisiana, New York, Connecticut, Massachusetts, New Jersey, Delaware, Pennsylvania, Colorado, Utah, and Montana. Approximately 60 refuges would be affected by this draft policy. Currently, approximately 40 refuges implement various mosquito control activities.

#### *Costs Incurred*

Any costs related to this rulemaking would be borne by each individual refuge and would generally involve costs associated with planning and developing mosquito management plans. No additional costs are expected to be incurred by State or local agencies beyond their usual monitoring costs. The distribution of information would be mostly limited to refuge personnel discussing with visitors the risks and precautions at visitor centers. We expect informing the public about mosquito populations and any possible health risks to incur minimal costs, if any. Refuge personnel would continue to take measures to manage mosquito populations during their normal activities. These standard measures would include such actions as removing artificial breeding sites. State and local officials would predominantly conduct monitoring and surveillance, which are voluntary activities. About 40 refuges currently issue special use permits for monitoring and surveillance activities. Refuges issue special use permits for activities conducted on the refuge. A permit contains guidelines and/or restrictions that apply to a specific activity. For those refuges that may allow new monitoring or surveillance, each permit would require approximately 8 hours by refuge personnel. Thus, approximately 160

hours would be allocated by refuge personnel to complete the permits (20 refuges  $\times$  8 hours). These permit requirements would occur annually, depending on the mosquito population levels. Each contingency plan would be specific to each refuge and would be a one-time cost. Currently, about four to five refuges have already constructed mosquito management plans. We estimate that each plan would require approximately 40 hours by refuge personnel. Accordingly, about 2,200 hours would be allocated to complete the contingency plans by the affected refuges (55 refuges  $\times$  40 hours).

#### *Benefits Accrued*

(1) This draft policy provides policy and procedures for refuge personnel to follow in making provisions to protect public health from mosquito-related health threats. This draft policy follows the requirements of the Administration Act, as amended, by requiring that activities associated with mosquito management be compatible with refuge purposes. It provides a procedure to follow Systemwide. This will ensure consistency in the process, although the outcome will vary based on refuge purposes and local conditions. We do not expect visitation to refuges to change as a result of this draft policy.

(2) This draft policy will not create inconsistencies with other agencies' actions. This draft policy pertains solely to the management of the Refuge System. In the event that the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population, we will work with the appropriate agency to ensure consistency.

(3) This draft policy will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. This draft policy does not affect entitlement programs.

(4) This draft policy will not raise novel legal or policy issues. This draft policy provides a procedure for refuge managers to follow in mosquito management throughout the Refuge System.

#### *Regulatory Flexibility Act*

Under the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the

effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions) (5 U.S.C. 601 *et seq.*). However, no regulatory flexibility analysis is required if the head of an agency certifies that the rule would not have a significant economic impact on a substantial number of small entities. Thus, for a regulatory flexibility analysis to be required, impacts must exceed a threshold for "significant impact" and a threshold for a "substantial number of small entities." SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule would not have a significant economic impact on a substantial number of small entities. We certify that this rule would not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). An initial/final regulatory flexibility analysis is not required. The following discussion explains our certification.

SBREFA does not explicitly define either "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, it is necessary to consider the relative number of small entities likely to be impacted in the area. Similarly, the relative impact on the revenues of small entities is used in determining whether or not entities incur a "significant economic impact." Small entities include small organizations, such as independent nonprofit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201).

Because this draft policy is not expected to affect activities in the surrounding area or to incur costs to the public, it would not have a significant effect on small businesses engaged in activities around the impacted refuges. Small governmental jurisdictions and independent nonprofit organizations are not expected to be affected. Therefore, we certify that this document would not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). No further regulatory flexibility analysis is required. Accordingly, a small entity compliance guide is not required.

The proposed policy is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. We anticipate no

significant employment or small business effects. This draft policy:

(1) Does not have an annual effect on the economy of \$100 million or more.

(2) Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, and/or local government agencies, or geographic regions. This draft policy should have no effect on the costs or prices.

(3) Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises. This draft policy does not make major changes to current policy. It simply provides a more consistent process for all refuge managers to follow in managing mosquito populations on refuges. Therefore, this document will have no measurable economic effect on the wildlife-dependent industry, which has annual sales of equipment and travel expenditures of \$72 billion nationwide.

#### *Unfunded Mandates Reform Act*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501, *et seq.*), this draft policy applies to management of federally owned refuges, and it does not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than \$100 million per year. The draft policy does not have a significant or unique effect on State, local, or tribal governments or the private sector.

#### *Takings (E.O. 12630)*

In accordance with E.O. 12630, the draft policy does not have significant takings implications. This draft policy will affect only how refuge managers plan actions to manage mosquitoes and mosquito-borne diseases on refuges.

#### *Federalism Assessment (E.O. 13132)*

This draft policy does not have sufficient federalism implications to warrant the preparation of a federalism assessment under E.O. 13132. In preparing this draft policy, we received input from State and local governments.

#### *Civil Justice Reform (E.O. 12988)*

In accordance with E.O. 12988, the Office of the Solicitor has determined that the draft policy does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the order. The draft policy will clarify established procedures for managing refuge lands.

#### *Energy Supply, Distribution, or Use (E.O. 13211)*

On May 18, 2001, the President issued E.O. 13211 on regulations that significantly affect energy supply, distribution, and use. Under E.O. 13211 agencies must prepare statements of energy effects when undertaking certain actions. Because this draft policy only provides procedures for managing mosquitoes and mosquito-borne disease on refuges, it is not a significant regulatory action under E.O. 12866 and is not expected to significantly affect energy supplies, distribution, and use. Therefore, this action is not a significant energy action and no statement of energy effects is required.

#### *Consultation and Coordination With Indian Tribal Governments (E.O. 13175)*

In accordance with E.O. 13175, we evaluated possible effects on federally recognized Indian tribes and determined that there are no effects. We coordinate management actions on refuges with tribal governments having adjoining or overlapping jurisdiction. This draft policy is consistent with and not less restrictive than tribal reservation rules.

#### *Paperwork Reduction Act*

This draft policy does not contain any information collection requirements other than those already approved by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) (OMB Control Number 1018-0102). See 50 CFR 25.23 for information concerning that approval. An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

#### *Endangered Species Act Section 7 Consultation*

The Service has determined that this draft policy will not affect listed species or designated critical habitat. Therefore, consultation under section 7 of the Endangered Species Act is not required. The basis for this conclusion is that the draft policy establishes the process for determining when a mosquito and mosquito-borne disease management plan must be completed. The ultimate decision to allow or otherwise implement a particular action is the causative agent with respect to affecting listed species or their critical habitat. We will conduct section 7 consultations when developing comprehensive conservation plans and step-down management plans, including mosquito and mosquito-borne disease management plans, for refuges.

#### *National Environmental Policy Act (NEPA)*

We ensure compliance with NEPA (42 U.S.C. 4332(C)) when developing refuge comprehensive conservation plans and step-down management plans, including mosquito and mosquito-borne disease management plans. In accordance with 516 DM 2, appendix 1.10, we have determined that this policy is categorically excluded from the NEPA process because it is limited to policies, directives, regulations, and guidelines of an administrative, financial, legal, technical, or procedural nature or the environmental effects of which are too broad, speculative, or conjectural to lend themselves to meaningful analysis. Site-specific proposals, as indicated above, will be subject to the NEPA process.

#### **U.S. Fish and Wildlife Service**

#### **Draft Mosquito and Mosquito-Borne Disease Management Policy (601 FW 7)**

#### **U.S. Fish and Wildlife Service**

#### *National Wildlife Refuge System*

7.1 What is the purpose of this chapter?

This chapter provides policy for refuge managers to help them determine how and when to manage mosquito populations on lands administered within the National Wildlife Refuge System (Refuge System).

7.2 What is the mosquito and mosquito-borne disease management policy?

A. It is Refuge System policy to allow populations of native mosquito species to exist unimpeded unless they pose a specific wildlife and/or human health threat. We recognize that mosquitoes are a natural component of most wetland ecosystems, and that they also may represent a threat to human and wildlife health.

B. When necessary to protect the health and safety of the public or a wildlife population, we allow management of mosquito populations on Refuge System lands using effective means that pose the lowest risk to wildlife and habitats.

C. Before we use any method to manage mosquito populations within the Refuge System, we must determine that it is compatible with the purpose(s) of an individual refuge and the Refuge System mission and complies with all applicable Federal laws. We can make an exception to this policy in the event that the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the

public or any fish or wildlife population.

D. Except during high risk disease situations where we need to take action quickly, we must give full consideration to the integrity of nontarget populations and communities when considering compatible habitat management and pesticide uses for mosquito control. Mosquito control procedures must also be consistent with integrated pest management (IPM) strategies and with existing pest management policies of the Department of the Interior (DOI) and the Fish and Wildlife Service (Service) (517 DM 1 and 30 AM 12). Even during high risk disease situations we require mosquito population monitoring data that indicate intervention is necessary, as well as appropriate pesticide review, although these will be expedited so that any necessary intervention measures will not be delayed (see section 7.17)

E. We allow pesticide treatments for mosquito population control on Refuge System lands only when local, current mosquito population monitoring data have been collected and indicate that refuge-based mosquito populations are contributing to a human or wildlife health threat.

### 7.3 What is the scope of this policy?

This policy applies to all units of the Refuge System where we have jurisdiction over such actions, whether the Service or an authorized outside agency performs mosquito management.

### 7.4 What is the authority for this chapter?

The authority for this chapter is the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Administration Act) (16 U.S.C. 668dd–668ee). The Administration Act:

A. Provides authority for adopting rules and establishing policies for managing the Refuge System and governing refuge uses.

B. Prohibits uses that are not compatible with the purpose(s) of an individual refuge and the Refuge System mission.

C. Requires that we administer the Refuge System as “\* \* \* a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” The Administration Act defines wildlife as “any wild member of the animal kingdom.”

D. Directs the Secretary to “\* \* \* ensure that the biological integrity,

diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans.” The Secretary can also allow or initiate activities on a refuge to protect the health and safety of the public or any fish or wildlife population, notwithstanding any other requirements of the Act.

7.5 What other statutes and policies may be relevant to mosquito control and what additional documentation does the Service require to monitor and control mosquitoes within the Refuge System?

A. National Environmental Policy Act (NEPA) (42 U.S.C. 4321–4347).

(1) Categorical Exclusions. Under most circumstances, we may categorically exclude monitoring and surveillance activities under existing DOI NEPA procedures for data collection and inventory. (For more information, see 516 DM 2, Appendix 1.6; 516 DM 8.5B(1); and 516 DM 2, Appendix 2 (categorical exclusions).) In addition, some habitat management actions as described in section 7.9B may be categorically excluded. If a proposed refuge mosquito management activity qualifies as a categorical exclusion, refuges should document it in an environmental action statement (EAS). We generally may not categorically exclude intervention measures such as pesticide applications for mosquito-borne health threats.

(2) Environmental Assessments. Refuges that have completed the NEPA process for mosquito management should ensure that they addressed the environmental consequences of potential intervention measures. Refuges that have not completed the NEPA process for mosquito management should prepare an environmental assessment (EA) if they expect they might need to implement intervention measures, such as applying pesticides. You may reasonably expect that intervention measures are likely if the State or local public health agency has documented a potential health threat from refuge-based mosquitoes (see section 7.13 for information about determining health threats).

(a) In a non-emergency situation, when a State/local public health agency documents a potential threat, you must complete an EA with the appropriate finding before conducting substantial intervention activities.

(b) You must consider local conditions in an EA. When assessing the potential environmental effects of pesticide applications, consider such factors as the:

(i) Spatial and temporal extent of the treatment,

(ii) Toxicity and specificity of the proposed pesticide(s) to fish and wildlife populations,

(iii) Persistence of the proposed pesticide(s), and the

(iv) Alternatives to the proposed action (e.g., different pesticides, using larvicides versus adulticides, compatible habitat management).

(c) To minimize potential impacts, identify and document restricted areas and activities in an EA. If a finding of no significant impact (FONSI) cannot be made, prepare an environmental impact statement (EIS).

(3) NEPA in Emergency Situations. In a situation where there is a high risk for mosquito-borne disease, you may need to take immediate intervention measures without completing a NEPA review. If you cannot categorically exclude the necessary measures, contact the Regional NEPA coordinator for guidance. After the high risk disease situation has ended, you must complete proper NEPA documentation that addresses future mosquito management activities on the refuge.

B. Endangered Species Act (16 U.S.C. 1531–1544). Comply with section 7 for listed and candidate species (refer to the Endangered Species Consultation Handbook, U.S. Fish and Wildlife Service and National Marine Fisheries Service, 1998). Complete section 7 compliance in conjunction with the refuge-specific mosquito management plan (Exhibit 1).

You must submit consultation documents at least 135 days prior to beginning proposed mosquito management activities. The DOI pesticide use policy (517 DM 1) and the Service pest management policy (30 AM 12) do not allow for adverse impacts to listed species from pesticides. If the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population before completing Endangered Species Act section 7 compliance, contact the local ES office for recommendations.

C. Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.). On Refuge System lands, we may only use pesticides that are registered with the Environmental Protection Agency. We must apply them according to the pesticide label directions.

D. Compatibility Determination (50 CFR 26.41 and 603 FW 2). We must complete a compatibility determination before we allow an outside agency to perform surveillance and intervention activities unless the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity

in a refuge to protect the health and safety of the public or any fish or wildlife population. See 603 FW 2 for more information on compatibility.

**E. Pest Management and Pesticide Use Policies (516 DM 1 and 30 AM 12).**

Follow all DOI and Service pest management and pesticide use policies. Before applying any pesticide to Refuge System lands, the appropriate Regional or National IPM coordinator must review and approve the pesticide use proposal (PUP). The National IPM coordinator must approve the use of all adulticides. We may expedite PUP approvals during high risk disease situations where we need to take action quickly to protect human or wildlife health. If an outside agency applies pesticides, as is often the case, we require a special use permit (SUP), memorandum of understanding, or other agreement. The agreement must include the justification for pesticide applications, identify the specific areas to be treated, and list any restrictions or conditions that they must follow before, during, or after treatment. Preparation of SUPs, PUPs, and other compliance documentation will be expedited during high risk disease situations so that any necessary intervention measures will not be delayed (see section 7.17)

**7.6 What are the principles underlying this policy?**

**A. Wildlife Conservation.**

(1) The Administration Act clearly identifies wildlife conservation as a priority of the Refuge System. House Report 105–106, which accompanies the amendments to the Administration Act, states that “\* \* \* the fundamental mission of our Refuge System is wildlife conservation: Wildlife and wildlife conservation must come first.” The term “wildlife” includes all vertebrate and invertebrate species.

(2) In addition to undertaking the task of wildlife conservation, Refuge System managers must also consider impacts to federally listed threatened and endangered species and candidate species. This is particularly important to refuges established specifically for listed species conservation and recovery. To help determine these impacts, refuge managers can coordinate with local Ecological Services field office staff (both endangered species and environmental contaminants staff), other members of the species recovery team, and the respective State fish and wildlife agencies.

(3) Both the Service and the State fish and wildlife agencies have authorities and responsibilities for managing fish and wildlife on national wildlife refuges as described in 43 CFR part 24.

Consistent with the Administration Act, as amended, the Director interacts, coordinates, cooperates, and collaborates with the State fish and wildlife agencies in a timely and effective manner on the acquisition and management of national wildlife refuges. The Director ensures that Refuge System regulations and management plans are, to the extent practicable, consistent with State laws, regulations, and management plans. We charge refuge managers, as the designated representatives of the Director at the local level, with carrying out these directives. We will provide State fish and wildlife agencies timely and meaningful opportunities to participate in the development and implementation of programs conducted under this policy. The most common method for State fish and wildlife agency involvement is through their participation on the comprehensive conservation plan (CCP) planning teams. We provide an opportunity for the State fish and wildlife agencies to participate in the development and implementation of program changes made outside of the CCP process, including development of mosquito management plans. For health threats involving wildlife, we will consult with the State fish and wildlife agency. Further, we will continue to provide State fish and wildlife agencies opportunities to discuss and, if necessary, elevate decisions within the hierarchy of the Service.

**B. Protection of Public Health.**

Although the fundamental goal of the Refuge System is wildlife conservation, we are committed to protecting the public from refuge-based mosquitoes that present a threat to human health. We manage such health threats using methods that we determine are compatible with the purpose(s) of the refuge and the mission of the Refuge System. We may make exceptions to this policy in the event that, under the emergency provision of the Administration Act, the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population. We recognize that equines may also become infected by certain mosquito-borne diseases. Given that infection by mosquito-borne pathogens in equines and humans represent similar risks to public health, appropriate measures we take to protect human health from these diseases would also offer similar protection to equines.

**C. Mosquito Management and the Protection of Biological Integrity,**

**Diversity, and Environmental Health.** We manage mosquitoes in such a way as to meet our statutory obligations to protect the biological integrity of refuges while meeting our policy obligations and our social obligation to protect the health and well-being of the human communities surrounding refuges. Mosquito management strategies and the altered ecological communities that may result can potentially impact the biological integrity, diversity, and environmental health of refuge lands that we must maintain under the Administration Act and 601 FW 3.

(1) Using chemical or other control agents can affect environmental health and possibly impact genetic configuration within species if they develop pesticide resistance.

(2) Removing target and nontarget organisms from ecological communities lowers biological diversity (even though it is usually temporarily) and may impact biological integrity by altering food webs and species composition.

**7.7 What terms do you need to know to understand this chapter?**

**A. Action Threshold.** Mosquito population levels that trigger integrated pest management (IPM) actions to manipulate mosquito populations.

**B. Adulticide.** Killing adult mosquitoes or a pesticide that kills adult mosquitoes.

**C. Biological Diversity.** The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and communities and ecosystems in which they occur. (See 601 FW 3 for more information on biological diversity.)

**D. Biological Integrity.** Biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms, and communities. (See 601 FW 3 for more information on biological integrity.)

**E. Environmental Health.** Composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment. (See 601 FW 3.)

**F. Enzootic.** A relatively consistent prevalence of disease in animals. The term is comparable to endemic, but refers to animals.

**G. Health Threat.** An adverse impact to the health of human or wildlife populations from mosquitoes identified and documented by Federal, State, and/or local public health authorities.

H. Integrated Pest Management (IPM). A sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks.

I. Larvicide. Killing mosquito larvae, or a pesticide that kills mosquito larvae.

J. Mosquito-Borne Disease. An illness produced by a pathogen that mosquitoes transmit to humans and other vertebrates. The major mosquito-borne pathogens presently known to occur in the United States that are capable of producing human illness are the viruses causing eastern equine encephalitis, western equine encephalitis, St. Louis encephalitis, West Nile encephalitis/fever, LaCrosse encephalitis, and dengue, as well as the protozoans causing malaria.

K. Mosquito-Borne Disease Surveillance. Activities associated with detecting pathogens causing mosquito-borne diseases, such as testing adult mosquitoes for pathogens or testing reservoir hosts for pathogens or antibodies.

L. Mosquito Management. Any activity designed to inhibit or reduce populations of flies in the family Culicidae. It includes physical, biological, cultural, and chemical means of population control directed against any life stage of mosquitoes.

M. Mosquito Population Monitoring. Activities associated with collecting quantitative data to determine mosquito species composition and to estimate relative changes in mosquito population sizes over time.

N. Nontarget Organisms. Species or communities other than those designated for population control.

O. Public Health Authority. A Federal, State, and/or local agency that has health experts with training and expertise in mosquitoes and mosquito-borne diseases and that has the official capacity to identify health threats and determine when there is a high risk for serious human disease or death from mosquitoes.

P. Pupacide. A pesticide that kills the pupal stage of mosquitoes.

Q. Refuge-Based Mosquitoes. Mosquitoes that are produced within, or occur on, a refuge.

R. Reservoir Host. A species in which a pathogen is maintained over time. Reservoir hosts are capable of transferring the pathogen to a vector.

S. Vector. An organism, such as an insect or tick, that is capable of acquiring and transmitting a disease-causing agent, or pathogen, from one vertebrate host to another, or the act of transmitting a pathogen in such a manner.

7.8 How does the Service protect human and/or wildlife health from threats associated with refuge-based mosquitoes?

We take the following approaches, each of which we describe in more detail in sections 7.9 through 7.17.

A. Use of standard operating procedures based on an IPM approach (see section 7.9).

B. Development of mosquito management plans (see sections 7.10 and 7.11).

C. Determining health threats (see section 7.12).

D. Monitoring to determine appropriate response (see section 7.13).

E. Surveillance for mosquito-borne disease (see section 7.14).

F. Implementing treatment options (see section 7.15).

G. Education and outreach (see section 7.16).

H. High disease risk situations (see section 7.17).

7.9 What standard operating procedures are in place to reduce threats to human and wildlife health from mosquitoes?

When necessary to protect human and wildlife health, we reduce potential mosquito-associated health threats using an IPM approach. When practical, the approach may include compatible actions that reduce mosquito production and do not involve pesticides. We consider the procedures described below as long-term practices to reduce persistent potential mosquito-associated health threats that Federal, State, and/or local public health authorities have identified. Except in cases where the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population, where there is a need to take action immediately, any procedures we use to reduce mosquito production must be compatible with refuge purposes and the Refuge System mission. The procedures also must give full consideration to the safety and integrity of nontarget organisms and communities, including federally listed threatened and endangered species and candidate species.

A. We remove or otherwise manage artificial breeding sites such as tires, tanks, or similar debris/containers, where possible, to eliminate conditions that favor mosquito breeding, regardless of whether they are a health threat.

B. When enhancing, restoring, or managing habitat for wildlife, we will consider using specific actions to reduce

mosquito populations that do not interfere with refuge purposes or wildlife management objectives. For example, when manipulating water levels for managing wetlands, you can disrupt mosquito life cycles by timing flood-up and draw-downs. You also can manage vegetation in such a way that discourages mosquitoes from laying eggs.

C. Except when we determine it is appropriate during circumstances where the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population, we prohibit habitat manipulations for mosquito management (such as draining or maintaining high water levels inappropriate for other wildlife) that conflict with wildlife management objectives.

D. We will consider introducing predators to manage mosquitoes only if we can contain such introductions. To introduce predators, we require the following:

(1) We must be able to demonstrate effectiveness of the planned introduction.

(2) The refuge must evaluate the introduction for potential adverse impacts to nontarget organisms and communities to ensure the introduction will not interfere with the purpose(s) of the refuge or other refuge management objectives.

(3) We must have appropriate procedures in place for all species introductions to ensure that we do not release other species with the desired introductions.

(4) For introductions of nonnative predators, the refuge must prepare:

(a) A compatibility determination,

(b) A written plan for containment of the introduced species to the desired location(s), and

(c) The appropriate level of compliance with section 7 of the Endangered Species Act evaluating potential effects of the introduced predator on federally listed threatened or endangered species and candidate species.

(d) The appropriate level of NEPA compliance.

(5) In compliance with Executive Order 13112, we will not authorize any activities likely to cause or promote the introduction or spread of invasive species. (See 601 FW 3.)



7.10 When does the Service develop mosquito management plans to help reduce threats to human and wildlife health from mosquitoes?

We develop refuge-specific mosquito management plans (see Exhibit 1) at the field station level for refuges where potential or existing mosquito-associated health threats have been identified and documented, or are reasonably expected to occur. We develop these plans in coordination with Federal, State, and/or local public health authorities that have expertise in vector-borne diseases, vector control agencies, and State fish and wildlife agencies.

A. The refuge may need to develop a plan if there has been documentation of mosquito-borne disease activity within flight range of refuge-based mosquito species in the previous year.

B. Refuges with an ongoing mosquito or disease monitoring program must develop refuge-specific mosquito management plans.

C. Identification and documentation of a potential human and/or wildlife health threat from refuge-based mosquitoes (see section 7.11) triggers the development of a refuge-specific mosquito management plan. Federal, State, and/or local public health authorities identify and document a mosquito-associated human health threat and bring it to the attention of the refuge manager. Appropriate documentation may include species-specific adult mosquito monitoring data from the refuge or areas adjacent to the refuge that indicate an abundance of species known to vector one or more endemic/enzootic diseases or otherwise adversely impact human or wildlife health. For refuges without an ongoing mosquito or disease monitoring program, mosquito-borne disease activity near the refuge may indicate a health threat or a situation in which mosquito management needs to be undertaken quickly (refer to section 7.17). The identification and documentation of a potential mosquito-associated health threat will not necessarily imply a need for us to manage mosquito populations, but may indicate the need to initiate on-refuge monitoring (if not already underway) and mosquito management planning.

D. We work collaboratively with Federal, State and/or local public health authorities in the identification of mosquito-associated health threats. However, the Secretary maintains the authority to act independently as necessary to protect the health and safety of the public or any fish or wildlife population.

E. Mosquito-borne disease and vector management may not be an issue on many Service lands, and not every refuge needs to develop a plan.

F. In the event that the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population, when there is a need to take action immediately, we allow refuges to manage mosquito populations even if they do not have a mosquito management plan (see section 7.17 for additional guidance).

7.11 What is in a mosquito management plan?

We base mosquito management plans on IPM principles. The Regional IPM coordinator reviews them, and the Regional and California/Nevada Operations Office (CNO) Refuge chief approves or disapproves them. Mosquito management plans consist of four parts: Health threat determinations, mosquito population monitoring, surveillance for mosquito-borne disease, and treatment options. See Exhibit 2 for details.

7.12 How does the Service make determinations about health threats caused by mosquitoes?

A. We determine if there are health threats at the local level based on historical incidence of mosquito-borne health threats and current, local monitoring of mosquito populations and disease activity. (See section 7.13 for more information on monitoring.) We work with local, State, or Federal public health authorities with expertise in mosquitoes and mosquito-borne disease epidemiology to identify refuge-specific categories of mosquito-associated human health threats based on monitoring data. Where local or State public health expertise in mosquito-borne disease epidemiology is lacking, we consult with the Department of Health and Human Services Centers for Disease Control and Prevention (CDC) to develop these categories.

B. Federal, State, and/or local public health authorities with jurisdiction inclusive of refuge boundaries determine the human health threat level using current local monitoring data (see section 7.13C). Wildlife health experts from Federal or State wildlife agencies determine if there are threats to wildlife health because of mosquitoes.

C. Once we identify a health threat through monitoring data, State/local public health authorities or vector control agencies may take the pre-determined response(s) developed for that threat category (see Exhibit 2). We

also respond appropriately when neighboring State/local public health authorities determine there is a health threat.

D. Following guidelines established by the CDC, threat categories will represent a hierarchical scale of increasing risk to human or wildlife health based on disease activity and mosquito vector population numbers, and will include appropriate actions to take for each threat level category. Such a locally developed health threat matrix will provide the basis for all future mosquito management decisions and activities on a refuge, so threat level categories and responses should be as specifically defined as practical.

E. If we cannot agree with other agencies on the determination of health threats, threshold values, or other components of the mosquito management plan, we will work with the public health and vector control agencies to identify third-party agencies or individuals with appropriate expertise in mosquito biology and vector-borne disease ecology for further guidance.

7.13 How does the Service monitor mosquito populations to determine if a response is necessary and, if so, what the appropriate response is?

A. The objectives of mosquito population monitoring are to:

- (1) Establish baseline data on species and abundance,
- (2) Map breeding and/or harboring habitats, and
- (3) Estimate relative changes in population sizes for making IPM decisions to reduce mosquito populations when necessary.

B. We use an approach based on specific health threats and refuge mosquito population monitoring data to determine the appropriate refuge mosquito management response (see Exhibit 2).

(1) Monitoring should occur at any time mosquitoes are active, even when there is no evidence of mosquito-borne disease present.

(2) Monitoring protocols specify detailed sampling techniques for larval and adult mosquitoes. When possible, identify mosquitoes to the species level.

C. Human and wildlife health threats from mosquitoes may vary depending on geographic area and time, and we must determine the threat at the local level. State/local public health authorities and vector control agencies will be responsible for monitoring mosquito populations, conducting disease surveillance, and applying pesticide treatments. We recognize the importance of monitoring mosquito



populations to document species composition and estimate their size and distribution because we use this information to make IPM decisions. We allow State/local public health authorities and vector control agencies to monitor mosquito populations on Refuge System lands as long as monitoring is compatible with the purpose(s) of the refuge.

D. Refuges can issue an SUP, memorandum of understanding, or other agreement to allow compatible monitoring of larval and adult mosquito populations. To avoid harm to wildlife or habitats, access to traps and sampling stations must meet the compatibility requirements found in 603 FW 2 and may be subject to refuge-specific restrictions. Where federally listed or candidate species are present, monitoring methods must undergo the appropriate level of compliance with section 7 of the Endangered Species Act in order to determine whether or not such monitoring programs will adversely affect the listed or candidate species.

E. We expect the extent and intensity of a monitoring program to vary according to the potential and historical incidence of mosquito-associated health threats, as well as the resources available to the refuge and the public health authority or vector control district.

F. If a public health authority or vector control agency is not available to conduct monitoring, the mosquito management plan will identify the conditions under which refuge staff will initiate emergency monitoring. Refuges that want to monitor mosquito populations themselves may do so. They should outline their activities in the refuge-specific contingency plan (see Exhibit 1), and include mosquito monitoring protocols in the refuge inventory and monitoring plan. (See 701 FW 2 for more information about inventorying and monitoring populations.)

7.14 How does the Service use surveillance for mosquito-borne disease to reduce threats to human and wildlife health from mosquitoes?

We allow Federal, State, and/or local public health authorities or vector control agencies to perform compatible mosquito-borne disease surveillance on Refuge System lands.

A. The objectives of mosquito-borne disease surveillance are to:

- (1) Detect the presence of pathogens,
- (2) Estimate changes in disease or pathogenic activity, and
- (3) Assess human and wildlife health threats due to mosquitoes.

B. Federal, State, and/or local public health and wildlife management authorities may use appropriate documentation of previous or current mosquito-borne disease activity adjacent to the refuge to identify potential or existing health threats.

C. Disease surveillance adjacent to the refuge should be within flight range of vector species found on the refuge.

D. State and local public health authorities or vector control agencies are generally responsible for other disease surveillance methods, such as monitoring disease activity in reservoir hosts for pathogens or antibodies, collecting adult mosquito samples using live traps, and testing the samples in same-species pools for virus.

(1) On Refuge System lands, we may authorize these activities, and they must meet the compatibility requirements in 603 FW 2.

(2) Approved, compatible surveillance activities on the refuge will include specific, detailed methodologies and the number and location of detection stations.

(3) Where federally listed or candidate species are present, surveillance methods must undergo the appropriate level of compliance with section 7 of the Endangered Species Act in order to determine whether or not such monitoring programs will adversely affect the listed or candidate species.

(4) Surveillance for mosquito-borne disease may involve monitoring and testing wildlife, especially birds and mosquitoes, and testing captive sentinel birds on or adjacent to the refuge. We discourage using caged sentinel chickens on refuges for reservoir host surveillance due to the risk of spreading disease to wild birds.

E. Refuge employees note dead or sick wildlife during their routine outdoor activities. In most cases, this will only involve passive surveillance for affected wildlife.

(1) Refuges identify a facility to test dead or sick wildlife for mosquito-borne pathogens in mosquito management plans (also see Exhibit 1).

(2) Refuge personnel receive instruction on proper procedures for safely collecting, handling, shipping, or disposing of potentially infected wildlife.

(3) If wildlife specimens from a refuge test positive for mosquito-borne disease, we provide these results to the State and local public health authorities, State fish and wildlife agencies, and the refuge supervisor immediately.

7.15 How does the Service determine what treatment options to use for mosquitoes?

A. We establish numerical action thresholds in collaboration with Federal, State, and/or local public health authorities and vector control agencies and identify them in the mosquito management plan (see Exhibit 2).

(1) The action thresholds represent mosquito population levels that may require intervention measures.

(2) We develop thresholds considering many factors, including those listed in Exhibit 3.

(3) Thresholds are species-specific (or species-group-specific) for larval, pupal, and adult mosquito vectors and reflect the potential significance of a particular species or group of species in a particular health threat. For example, mosquito vector species known to be important in the transmission cycle of a disease may have a lower action threshold than species with lesser transmission roles (see Exhibit 3).

(4) We compare current mosquito population monitoring data to the established action thresholds.

(5) We implement intervention measures only when current mosquito population estimates, as determined by current mosquito monitoring data, meet or exceed the established action thresholds.

B. We choose treatment based on our pest management policy (30 AM 12). We base the choice on the following, which appear in order of preference:

- (1) Human safety and environmental integrity,
- (2) Effectiveness, and
- (3) Cost.

C. We use human and wildlife mosquito-associated health threat determinations combined with refuge mosquito population estimates to determine the appropriate refuge mosquito management response (see Exhibit 2).

D. Where federally listed or candidate species are present, we use Endangered Species Act section 7 compliance information to assist in the decision-making process.

E. After we evaluate all other reasonable IPM actions, we may allow pesticide treatments to control mosquitoes on Refuge System lands.

(1) Before applying pesticides to Refuge System lands, we must have an approved PUP in place.

(2) We determine the most appropriate pesticide treatment options based on monitoring data for the relevant mosquito life stage. We use current monitoring data for larval,

pupal, and adult mosquitoes to determine the need for larvicides, pupacides, and adulticides, respectively.

(3) We do not allow pesticide treatments for mosquito control on Refuge System lands without current mosquito population data indicating that such actions are warranted.

F. The mosquito management plan also identifies more aggressive monitoring and control efforts as health threat risk levels increase (see Exhibit 2). If we determine pesticide treatments are necessary to quickly reduce mosquito populations, we may allow appropriate pesticides based on the nature of the threat.

(1) Larvicides. When we can reduce health threats by using pesticides that kill mosquito larvae (larvicides), we choose an effective larvicide that causes the least impact to nontarget organisms.

(2) Pupacides. We limit the need for pupacides by treating threatening larval populations in a timely manner. We consider using pupacides only when there is a documented health threat. We select an effective pupacide that causes the least impact to nontarget organisms.

(3) Adulticides. We allow the use of adulticides only when there are no practical and effective alternatives to reduce a health threat. The mosquito management plan will identify best management practices to reduce nontarget impacts in cases where we use adulticide treatment.

G. We work with public health and vector control agencies to develop communication procedures, particularly to address high risk disease situations. Timely communication at the outset of a disease outbreak will speed any necessary response. We share contact information with other agencies. Refuge employees have the necessary contact information for appropriate Service personnel to expedite any necessary compliance documentation (see section 7.17).

7.16 How does the Service use education and outreach to protect human and wildlife health from threats from mosquitoes?

A. Where appropriate, we collaborate with Federal, State, and/or local wildlife agencies, public health authorities, agriculture departments, and vector control agencies to conduct education and outreach activities aimed at protecting human and wildlife health from threats associated with mosquitoes.

B. Where appropriate, we distribute information materials about mosquito-associated threats through refuge visitor centers and Service Internet sites.

C. Refuge employees receive instruction on personal protection measures to minimize their exposure to mosquito-borne diseases.

7.17 How does the Service address high risk mosquito-borne disease situations on refuges?

Federal, State, and/or local public health authorities may officially identify a high risk for mosquito-borne disease based on documented disease activity in humans or wildlife. In addition, the Secretary has the authority to identify a high risk for mosquito-borne disease independent of Federal, State, and/or local public health authorities. Such a high risk determination indicates an imminent risk of serious human disease or death, or an imminent risk to populations of wildlife. Public health authorities may request pesticide treatments to Refuge System lands to decrease mosquito vector populations and lower the health risk. Refuges with approved mosquito management plans will have addressed potential high risk situations and appropriate responses within those documents. Refuges without approved mosquito management plans should contact their refuge supervisor and Regional IPM coordinator in the event of a high risk determination. Even during high disease risk situations, we allow pesticide treatments for mosquito population control on Refuge System lands only when local and current mosquito population monitoring data are available and indicate that refuge-based mosquito populations are contributing to a human and/or wildlife health threat. Collecting such monitoring data is standard for making IPM decisions and should not delay appropriate treatment. For a high risk mosquito-borne disease determination, appropriate documentation includes identification of infected mosquitoes or abundant populations of vector species within refuge boundaries. In high risk mosquito-borne disease situations, we will do the following:

A. If no mosquito population data are available for the refuge, we will request (or undertake, if applicable) short-term (24 hours or less) monitoring of adult and/or larval mosquito populations on the refuge to ensure that intervention is necessary.

B. If necessary, we monitor the populations ourselves. We cannot use a pesticide unless we have current mosquito population monitoring data indicating intervention with pesticides is warranted. We will complete and submit a PUP to the Regional IPM coordinator and Washington Office IPM coordinator, if applicable, for expedited

review. In a high risk disease situation we may not wait for monitoring results to initiate the PUP process, and we will expedite the review of PUPs.

C. If there is no site-specific National Environmental Policy Act (NEPA) documentation for the proposed emergency intervention measure(s), contact the Regional NEPA coordinator for guidance (refer to section 7.5).

D. If federally listed or candidate species are present and Endangered Species Act section 7 compliance has not been completed for the potential intervention measures, contact the local Ecological Services (ES) office for recommendations (refer to section 7.17).

E. Notify refuge employees and visitors of the increased human health risk and provide information for personal protection against mosquito-borne disease. Where appropriate, we will consider restricting or closing all or part of the refuge to visitors and restricting outdoor activities of employees.

F. If monitoring data indicate that intervention with pesticides is warranted, we will prepare an SUP for pesticide application(s). In the SUP, we may identify pertinent conditions and restrictions on pesticide application activities to protect sensitive species or habitats. Although we may waive the requirement for a compatibility determination in a high disease risk situation, we will choose effective means to lower the health threat that pose the least risk to wildlife and habitats.

G. Preparation of SUPs, PUPs, and other compliance documentation will be expedited so that any necessary intervention measures will not be delayed.

H. After pesticide applications, we require (or undertake, if applicable) additional mosquito population monitoring to assess the effectiveness of the pesticide treatment(s).

I. See Section 7.5A.(3) for NEPA procedures in emergency situations.

J. Once a high risk mosquito-borne diseases situation is over, an affected refuge must develop a mosquito management plan and prepare all necessary compliance documents (see sections 7.5, 7.10, and 7.11).

Dated: September 21, 2007.

**Kenneth Stansell,**

*Acting Director, U.S. Fish and Wildlife Service.*

### 601 FW 7, Exhibit 1

#### **Outline: Mosquito Management Plan for Mosquito Associated Threats on Refuges**

##### *I. Health Threat Determination*

A. Describe the communication process and identify points of contact and their contact information for Federal and/or State/local public health authorities, vector control agencies, and recognized experts in vector ecology, epidemiology, public health, and wildlife health. Identify agency with public human health authority that has the official capacity to make a human health determination. Identify personnel with medical training on the epidemiology of mosquito-borne diseases.

B. Elaborate on regional/local history of mosquito associated health threat(s). Identify endemic and enzootic mosquito-borne diseases.

C. Determine health threat(s) using criteria in Exhibit 2 based on documentation from Service wildlife health experts, State fish and wildlife agency health experts, Federal and/or State/local public health authorities, and/or public health veterinarians employed by the appropriate public health authorities that refuge-based mosquitoes threaten human or wildlife health.

1. Off-refuge (or on-refuge, if available) mosquito surveillance summary data (species and abundance).

2. List of vector species present and enzootic/endemic diseases they may vector.

##### *II. Monitoring Mosquito Populations (Developed in Cooperation With Federal/State/Local Public Health Authorities, Vector Control Agencies, and State Fish and Wildlife Agencies)*

A. Identify the purpose and goals of monitoring on the refuge.

B. Identify who will conduct monitoring on the refuge and their contact information.

C. Identify when they will conduct the monitoring:

1. Routine, seasonal; or  
2. Monitoring only when threat level is elevated (identify triggers for monitoring).

D. Description of monitoring protocols.

1. Larval and pupal mosquito monitoring and breeding habitat inventory and mapping.

(a) Objective(s).

(b) Method(s).

(c) Sampling locations and numbers of samples/location.

(d) Frequency of sampling.

(e) Processing/identification of samples (species, larval stage).

2. Adult mosquito monitoring.

(a) Method(s) of sampling (e.g., traps, landing counts).

(b) Sampling locations and frequency of sampling.

(c) Processing/identification of samples.

3. Post-treatment monitoring: Monitoring should continue after any treatment to determine efficacy.

E. Reporting.

1. Refuge receives copies of all monitoring data concerning refuge.

2. Refuge shares annual habitat management plans, if applicable, with public health or vector control agency.

F. Restrictions/Stipulations: Identify any restrictions/stipulations on monitoring activities (e.g., access, vehicle use, sensitive species or habitats, time of day, etc.) to ensure compatibility.

##### *III. Surveillance of Mosquito-Borne Disease (Developed in Cooperation With Federal/State/Local Public Health Authorities, Vector Control Agencies, and State Fish and Wildlife Agencies)*

A. Identify the purpose and goals of surveillance.

B. Identify who will be conducting surveillance on or near the refuge and their contact information.

C. Identify when they will conduct surveillance.

1. Routine, seasonal surveillance; or  
2. Surveillance only when threat level is elevated (identify triggers for surveillance).

D. Description of surveillance protocols.

1. Disease monitoring.

(a) Objective(s).

(b) Method(s).

(c) Monitoring locations.

(d) Wildlife testing facility (for dead or sick wildlife found on the refuge).

2. Disease activity notification procedures between public health agency, State fish and wildlife agency, and refuge (we develop these procedures cooperatively).

3. Post-treatment monitoring: Surveillance should continue after any treatment to determine effectiveness.

E. Restrictions/Stipulations: Identify any restrictions/stipulations on surveillance activities (e.g., access, vehicle use, sensitive species or habitats, time of day, etc.).

##### *IV. Treatment Options (Developed in Cooperation With Federal/State/Local Public Health Authorities, and Vector Control Agencies, and State Fish And Wildlife Agencies Using Stepwise Approach, Exhibit 2)*

A. Identify and categorize refuge-based vector species or species groups based on role in transmission cycle(s) of enzootic/endemic diseases.

B. Identify species-specific larval, pupal, and adult mosquito vector action threshold levels that reflect the importance of vector species in the transmission cycle (see Exhibit 3).

C. Identify health threat levels and describe potential intervention measures for each level (Exhibit 2). Include non-pesticide and pesticide intervention options.

D. Complete NEPA process, as necessary, to examine potential environmental effects of potential intervention measures. In an emergency, contact the Regional NEPA coordinator for guidance.

E. Complete Endangered Species Act section 7 compliance for potential impacts to listed and candidate species from intervention measures.

F. Identify specific pesticides or other management actions to use at specific threat levels based on NEPA and section 7 analyses.

G. Unless the Secretary determines it is necessary to temporarily suspend, allow, or initiate any activity in a refuge to protect the health and safety of the public or any fish or wildlife population, complete a compatibility determination for intervention measures. Refer to 603 FW 2 for more information about compatibility and emergencies.

H. Follow Service pesticide use and permitting procedures, and attach approved pesticide use proposal (PUP) and special use permits (SUP).

1. Complete PUP.

2. Submit PUP to Regional IPM coordinator. In an emergency, contact Regional/CNO pest management coordinator (and national IPM coordinator, if adulticides are involved) to expedite PUP approval.

3. Prepare SUP or other agreement for agency conducting intervention measures, outlining specific actions to be taken (when, where, how) and describing any restrictions, stipulations, or other conditions on such actions.

### 601 FW 7, Exhibit 2

#### **Example of Mosquito-Borne Disease Health Threat and Response Matrix**

Current conditions		Threat level	Refuge response
Health threat category <sup>1</sup>	Refuge mosquito populations <sup>2</sup>		
No documented existing or historical health threat.	No action threshold .....	1	Remove/manage artificial mosquito breeding sites such as tires, tanks, or similar debris/containers.
	Below action threshold .....	2	Response as in threat level 1, plus: Allow compatible monitoring and disease surveillance. Consider compatible non-pesticide management options to reduce mosquito production (section 7.9).
Documented historical health threat.	Above action threshold .....	3	Response as in threat level 2, plus: Allow compatible site-specific application of larvicide in infested areas as determined by monitoring.
	Below action threshold .....	4	Response as in threat level 2, plus: Increase monitoring and disease surveillance.
Documented existing health threat (specify multiple levels, if necessary; e.g., disease found in wildlife, disease found in mosquitoes, etc.).	Above action threshold .....	5	Response as in threat levels 3 and 4, plus: Allow compatible site-specific application of larvicide, pupacide, or adulticide in infested areas as determined by monitoring data (refer to section 7.15).
	Below action threshold .....	6	Maximize monitoring and disease surveillance (refer to section 7.15).
High risk for mosquito-borne disease (imminent risk of serious human disease or death, or an imminent risk to populations of wildlife).	Above action threshold .....	7	Response as in threat level 6, plus: Allow site-specific application of larvicide, pupacide, and adulticide in infested areas as determined by monitoring (refer to sections 7.15 and 7.17).

<sup>1</sup> Health threat/risk as determined by Federal and/or State/local public health or wildlife management authorities with jurisdiction inclusive of refuge boundaries and/or neighboring public health authorities.

<sup>2</sup> Action thresholds represent mosquito population levels that may require intervention measures. We develop thresholds in collaboration with Federal and/or State/local public health or wildlife management authorities and vector control agencies. They must be species- and life stage-specific.

**601 FW 7, Exhibit 3**

**Factors To Consider When Establishing Thresholds for Use of Larvicides/Pupacides/Adulticides To Control Mosquitoes To Address Health Threats**

Factor	Description	Consideration
Mosquito species .....	Mosquito species vary in the following: Their ability to carry and transmit disease; flight distances; feeding preference (birds, mammals, humans); seasonality; and type of breeding habitat.	Consider these factors when establishing adult and larval thresholds. Often the species and biology of the mosquito are more important in developing thresholds than the relative abundance.
Proximity to human populations .....	The distance from potential mosquito habitat on NWRs to population centers (numbers and density).	The potential to produce large numbers of mosquitoes in close proximity to population centers may result in less tolerance or lower thresholds for implementation of mosquito control on NWRs.
Weather patterns .....	Prevailing wind patterns, precipitation, and temperatures.	Prevailing wind patterns that carry mosquitoes from refuge habitats to population centers may require lower thresholds. Inclement weather conditions may prevent mosquitoes from moving off-refuge, resulting in higher thresholds.
Cultural mosquito tolerance .....	The tolerance of different populations may vary by region of the country and associated culture and tradition.	In many parts of the country, residents accept mosquitoes as a way of life, resulting in higher mosquito management thresholds. NWRs in highly populated areas may require lower thresholds because of the intolerance of urban dwellers to mosquitoes.
Adults harbored, but not produced, on-refuge ...	Refuge provides resting areas for adult mosquitoes produced in the surrounding landscape.	Threshold for mosquito management on the refuge should be high with an emphasis for treatment of mosquito breeding habitat off refuge.

Factor	Description	Consideration
Spatial extent of mosquito breeding habitat .....	The relative availability of mosquito habitat within the landscape that includes the refuge.	If the refuge is a primary breeding area for mosquitoes that likely affect human health, threshold may be lower. If refuge mosquito habitats are insignificant in the context of the landscape, thresholds may be higher.
Natural predator populations .....	Balanced predator-prey populations may limit mosquito production.	If refuge vertebrate and invertebrate prey populations are adequate to control mosquitoes, threshold for treatment should be high.
Type of mosquito habitat .....	Preferred breeding habitat for mosquitoes is species-specific.	Because breeding habitat is species-specific, correlate thresholds for each species to initiate control with appropriate habitat types.
Water quality .....	Water quality influences mosquito productivity.	High organic content in water may increase mosquito productivity, lower natural predator abundance, and may require lower thresholds.
Opportunities for water and vegetation management.	Management of water levels and vegetation may reduce mosquito productivity.	Thresholds for treatment should be higher where we can control mosquitoes through habitat management.
Presence/absence of vector control agency .....	Many areas do not have adequate human populations to support vector control. In addition, resources available for mosquito management vary among districts.	Thresholds for management may be much higher or non-existent in areas without vector control.
Accessibility for monitoring/control .....	Refuges may not have adequate access to monitor or implement mosquito management.	Thresholds will probably be higher for refuges with limited access that will require cost-prohibitive monitoring and treatment strategies.
History of mosquito borne diseases in area .....	Past monitoring of wildlife, mosquito pools, horses, sentinel chickens, and humans have documented mosquito-borne diseases.	Thresholds in areas with a history of mosquito-borne disease(s) will likely be lower.

[FR Doc. E7-20201 Filed 10-12-07; 8:45 am]  
 BILLING CODE 4310-55-P

**DEPARTMENT OF THE INTERIOR**

**Bureau of Indian Affairs**

**Indian Gaming**

**AGENCY:** Bureau of Indian Affairs, Interior.

**ACTION:** Notice of approved amended Tribal-State Compact.

**SUMMARY:** This notice publishes approval of the Tribal-State Class III Gaming Compact between the State of New Mexico and the Pueblo of Laguna. **DATES:** *Effective Date:* October 15, 2007.

**FOR FURTHER INFORMATION CONTACT:** George T. Skibine, Director, Office of Indian Gaming, Office of the Deputy Assistant Secretary—Policy and Economic Development, Washington, DC 20240, (202) 219-4066.

**SUPPLEMENTARY INFORMATION:** Under Section 11 of the Indian Gaming Regulatory Act of 1988 (IGRA), Public Law 100-497, 25 U.S.C. § 2710, the Secretary of the Interior shall publish in the **Federal Register** notice of the approved Tribal-State Compacts and Amendments for the purpose of engaging in Class III gaming activities on Indian lands. This Amendment includes a provision that would

eliminate any payments to the state should the state permit any licensed horse racetrack to increase number of machines, increase hours of operation, allow operation of gaming machines outside licensed premises or operate table games. This Amendment extends the term of the Compact until 2037.

Dated: October 5, 2007.

**Carl J. Artman,**

*Assistant Secretary—Indian Affairs.*

[FR Doc. E7-20197 Filed 10-12-07; 8:45 am]  
 BILLING CODE 4310-4N-P

**DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**

[ID 100 1220MA 241A: DBG081001]

**Notice of Public Meeting: Joint Recreation Resource Advisory Council Subcommittee to the Boise and Twin Falls Districts, Bureau of Land Management, U.S. Department of the Interior**

**AGENCY:** Bureau of Land Management, U.S. Department of the Interior.

**ACTION:** Notice of public meeting.

**SUMMARY:** In accordance with the Federal Land Policy and Management Act (FLPMA) and the Federal Advisory Committee Act of 1972 (FACA), the U.S. Department of the Interior, Bureau of

Land Management (BLM) Boise and Twin Falls District Recreation Resource Advisory Council (Rec-RAC) Subcommittee, will hold a meeting as indicated below.

**DATES:** The meeting will be held November 14, 2007, beginning at 9:30 a.m. and adjourning at 4:30 p.m. The meeting will be held at the Three Island State Park Visitors Center, West Madison Street, Glenns Ferry, Idaho. Public comment periods will be held before the conclusion of the meeting.

**FOR FURTHER INFORMATION CONTACT:** MJ Byrne, Public Affairs Officer and RAC Coordinator, BLM Boise District, 3948 Development Ave., Boise, ID 83705, Telephone (208) 384-3393, or Beckie Wagoner, Administrative Assistant, Twin Falls District, 2536 Kimberly Rd., Twin Falls, ID 83301, (208) 735-2063.

**SUPPLEMENTARY INFORMATION:** In accordance with section 4 of the Federal Lands Recreation Enhancement Act of 2005, a Subcommittee has been established to provide advise to the Secretary of the Interior, through the BLM, in the form of recommendations that relate to public concerns regarding the implementation, elimination or expansion of an amenity recreation fee; or recreation fee program on public lands under the jurisdiction of the U.S. Forest Service and the BLM in both the Boise and Twin Falls Districts located in