



Public Health Law

Office for State, Tribal, Local and Territorial Support
Centers for Disease Control and Prevention

Executive Orders and Emergency Declarations for the West Nile Virus: Applying Lessons from Past Outbreaks to Zika

Government leaders are often given the authority to issue executive orders (EOs), proclamations, or emergency declarations to address public health threats, such as that posed by the Zika virus.¹ Local, state, and federal executive branch leaders have used these powers to address public health threats posed by other mosquito-borne diseases.² While existing laws and regulations may allow localities, states, and the federal government to take action to combat mosquito-borne threats absent an EO or emergency declaration, examining such executive actions provides a snapshot of how some jurisdictions have responded to past outbreaks.

As of February 21, 2016, only one territory and two states (Puerto Rico, Florida, and Hawaii) have issued emergency declarations that contemplate the threats posed by the Zika virus.^{3, 4} Historically, however, many US jurisdictions have taken such actions to address other mosquito-borne illnesses, such as West Nile virus. The following provides a brief analysis of select uses of local, state, and federal executive powers to combat West Nile virus. Examining the use of executive powers to address West

¹ L Rutkow et al. [The Public Health Workforce and Willingness to Respond to Emergencies: A 50-State Analysis of Potentially Influential Laws](#), 42 J. LAW MED. & ETHICS 64, 64 (2014) (“In the United States, at the federal, state, and local levels, laws provide an infrastructure for public health emergency preparedness and response efforts. . . . Law is perhaps most visible during an emergency when the president or a state’s governor issues a disaster declaration establishing the temporal and geographic parameters for the response and making financial and other resources available.”). While researchers were unable to find tribal declarations for West Nile virus for this analysis, tribes may have exercised their authority to declare emergencies on tribal land. For more on tribal emergency declarations, see G Sunshine, A Hoss, [Emergency Declarations and Tribes](#), 24.1 MICH. ST. INT’L. L. REV. 33 (2015).

² It should be noted that under some jurisdictions’ laws, a declaration may not be necessary to use mosquito control measures. Therefore, the lack of a declaration should not be interpreted to mean that a jurisdiction did not engage in mosquito control efforts to address the West Nile virus.

³ See [Puerto Rico Administrative Order 345 \(Feb. 2, 2016\)](#); [Florida Executive Order 16-29 \(Feb. 3, 2016\)](#); [Hawaii Emergency Proclamation Dengue 160212 \(Feb. 12, 2016\)](#).

⁴ While there are news reports describing the declaration a Zika epidemic for American Samoa (see, e.g., Joyetter Feagaimaalii-Luamanu, [Four DOH Samples Return Positive For Zika Virus; Lt. Gov. Declares Epidemic](#) (Feb. 12, 2016)), researchers were unable to locate a copy of this declaration or an official announcement on a website for the government of American Samoa. As a result, it was not included in this report.



Nile virus may inform actions taken to address the threats posed by other mosquito-borne diseases, such as Zika.

Zika Virus Overview

Zika virus is primarily spread to people through the bite of an infected *Aedes* species mosquito. The most common symptoms of Zika virus disease are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild, with symptoms lasting from several days to a week. Severe disease that requires hospitalization is uncommon in adults.⁵ The Centers for Disease Control and Prevention (CDC) notes that there have been reports of microcephaly in babies of mothers who were infected with Zika virus while pregnant. The link between Zika and microcephaly is being investigated. For more information, see CDC's Zika virus [website](#).⁶

Overall Findings

From December 2015 to February 2016, the Public Health Law Program (PHLP) collected and analyzed West Nile EOs and emergency declarations.⁷ After collection, PHLP examined these documents to determine what types of actions each EO and declaration ordered to respond to the West Nile virus. Each action was used to establish coding categories, which can be seen below at [Appendix I](#). Each document was then coded according to the coding categories to find common patterns across the various EOs and declarations.

Across the local, state, and federal levels of government, 21 total EOs and emergency declarations were collected and examined as of February 21, 2016 (see [Appendix II](#) for a list of all EOs and emergency declarations that were examined). Of those 21, the state that saw the greatest number of declarations across all levels of government was California, with five total (four state and one local),⁸ followed by Colorado, with three (all local),⁹ Louisiana, with three (two state and one local),¹⁰ and Texas, with three (all local).¹¹ New York saw two West Nile virus declarations (one federal and one local)¹² and Arkansas,¹³

⁵ CENTERS FOR DISEASE CONTROL AND PREVENTION, [Zika Virus: Transmission](#) (last visited Jan. 15, 2016).

⁶ CENTERS FOR DISEASE CONTROL AND PREVENTION, [Zika Virus](#) (last visited Feb. 28, 2015).

⁷ To collect relevant data, PHLP researches conducted an environmental scan consisting of searching WestLaw Next and LexisNexis databases, google, and contacting state and local government agencies to obtain EOs or emergency declarations for West Nile virus outbreaks. For more on the methodology used in environmental scans, see T Ramanathan, A Hoss & M Penn, *New Methods in Public Health Law: Establishing a Typology for Legal Epidemiology Studies* (forthcoming 2016).

⁸ Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007); Cal. Exec. Order S-10-07 (Aug. 13, 2007); Cal. Exec. Order S-11-07 (Aug. 20, 2007); Cal. Exec. Order S-12-07 (Sept. 12, 2007).

⁹ Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003); Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003); Weld County, Colo. Board of Commissioners Resolution 2003-2407 (Aug. 20, 2003).

¹⁰ Louisiana Proc., State of Emergency (Aug. 2, 2002) (West Nile State of Emergency Declaration); LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002); Louisiana Proc., State of Emergency (Aug. 28, 2002) (West Nile State of Emergency Extension).

¹¹ Dallas County, Tex. Declaration of a Local State of Disaster (Aug. 9, 2012); City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012); Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).

¹² New York; Emergency and Related Determinations (EM-3155), 65 Fed. Reg. 63589 (Oct. 24, 2000); Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

¹³ Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012).

Georgia,¹⁴ Oregon,¹⁵ Idaho,¹⁶ and New Jersey¹⁷ each saw one (all of which were local, except for New Jersey's federal declaration). Researchers were unable to locate past West Nile virus EOs or declarations from US territories.

Each EO and declaration issued for West Nile virus contains a variety of orders to respond to the threats posed by the disease. Most of the actions ordered in these documents can be broken down into four broad areas: generic response, mosquito abatement, disease surveillance and reporting, and public outreach and education. For a list of all coding categories and example language from EOs and declarations for each category, see the [appendix](#).

Generic Response

“Generic response” refers to actions ordered in the EO or declaration that are applicable to any natural disaster or public health threat, rather than those specific to disease threats. These actions consisted of orders, such as the declaration of an emergency, the activation of an emergency response plan, requiring interagency coordination, and requesting state or federal funds to aid in response. This category also included the suspension of state contracting and purchasing rules to allow the government to immediately enter into contracts or procure materials. In total, this category had 42 separate actions ordered to combat West Nile virus, the greatest number of actions ordered by the EOs and declarations examined.

The most frequent generic response actions ordered by West Nile virus EOs and declarations were the declaration, proclamation, or renewal of an emergency or disaster (18 occurrences),^{18,19} the activation of an emergency response or response plan (seven occurrences), the designation of the emergency management agency or official as lead for response (three occurrences),²⁰ the broad

¹⁴ Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009).

¹⁵ Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007).

¹⁶ Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006).

¹⁷ New Jersey; Emergency and Related Determinations (EM-3156), 65 Fed. Reg. 67747 (Nov. 13, 2000).

¹⁸ New York; Emergency and Related Determinations (EM-3155), 65 Fed. Reg. 63589 (Oct. 24, 2000); New Jersey; Emergency and Related Determinations (EM-3156), 65 Fed. Reg. 67747 (Nov. 13, 2000); Louisiana Proc., State of Emergency (Aug. 2, 2002) (West Nile State of Emergency Declaration); LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002); Louisiana Proc., State of Emergency (Aug. 28, 2002) (West Nile State of Emergency Extension); Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003); Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003); Weld County, Colo. Board of Commissioners Resolution 2003-2407 (Aug. 20, 2003); Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006); Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007); Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007); Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009); Dallas County, Tex. Declaration of a Local State of Disaster (Aug. 9, 2012); City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012); Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012); Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012); Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

¹⁹ When discussing “EOs and declarations” generally, “declarations” also refers to renewals of a declaration or proclamation of an emergency, as they can contain unique orders that differ from original declarations, and do not differ from the original declarations in that renewals serve to declare emergencies for a specified period of time.

²⁰ It should be noted that of the 21 West Nile virus EOs and declarations examined, none designated a public health agency or official as the lead for the response.

activation of all emergency response powers (three occurrences),²¹ the suspension of state purchasing, procurement, and contracting requirements (three occurrences),²² and the issuance of a request for state officials to issue a state-declared emergency for affected localities (three occurrences).²³ For the remaining generic response categories, see the [appendix](#) below.

Mosquito Abatement

“Mosquito abatement” refers to response actions that are unique to eliminating the population of mosquitoes in an affected or potentially affected area. These actions included calls for the application of pesticides generally, for adult or larval mosquitoes specifically, or the allocation of funds to be used to disperse pesticides. The mosquito abatement actions also required localities to work with each other to identify breeding grounds, but also included cautionary steps, such as the requirement that the state’s department of agriculture must first be consulted before materials are applied to organic farmland. This category had 21 separate types of actions ordered by jurisdictions to combat West Nile virus, the second greatest number of actions ordered of the four main areas.

Unlike generic response actions, where actions, such as “declaration of an emergency,” greatly outnumbered others types of actions, mosquito abatement actions infrequently overlapped. The most frequent type of mosquito abatement action ordered by West Nile virus EOs and declarations addressed the application of pesticides (six occurrences); of those six, two ordered the application of pesticides generally, two specially called for mosquito spraying operations from streets, right-of-ways, and “high risk” property, and two specially ordered larvicide to be placed in ponds, lakes, and water bodies, including on private property, that are likely to constitute breeding grounds for mosquitos.²⁴ The remaining 12 types of mosquito abatement actions were ordered no more than twice, such as the requirement that localities coordinate spraying and larvicide activities to minimize risks to human health (two occurrences),²⁵ or ordering state and local housing and health agencies to work with lenders, realtors, mortgage brokers, and others whose responsibilities include managing vacant homes to ensure that pools and other containers that can hold water are drained (one occurrence).²⁶ This indicates that, apart from ordering the application of pesticides, many jurisdictions used unique and specialized mosquito abatement actions in their West Nile EOs and declarations.

Disease Surveillance and Reporting

“Disease surveillance and reporting” refers to response actions that ordered or provided funding to enable responders to track the occurrences of West Nile virus in their jurisdictions. Only four disease surveillance and reporting actions were ordered in the EOs and declarations that were examined. Of

²¹ Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003); City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012); Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

²² Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Cal. Exec. Order S-12-07 (Sept. 12, 2007); Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

²³ Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006); Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007); Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007).

²⁴ Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003); Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003); Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009); Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012).

²⁵ Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003); Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003).

²⁶ Cal. Proclamation of a State of Emergency (Aug. 2, 2007).

those, three were for the allocation of funds to local vector control agencies,²⁷ and one required a plan to detect West Nile virus on state-owned property.²⁸

Public Outreach and Education

“Public outreach and education” refers to response actions that either fund or are aimed at informing the public of the dangers posed by West Nile virus and how to prevent its further spread. Of the three public outreach and education actions ordered, two ordered states to allocate funds to local vector control agencies for outreach and education to the public and the medical community,²⁹ and one directly ordered implementation of public outreach activities.³⁰

Unclassified West Nile Virus Response Actions

Of the 42 different types of response actions found in the 21 West Nile virus EOs and declarations, 2 did not fall within the four main areas. First, in California’s August 2, 2007, emergency proclamation for West Nile virus, the governor ordered the state health department to work with local health departments to minimize incidents of valley fever.³¹ The second unclassified response action, from the same emergency proclamation, ordered “the Department of Public Health and the Department of Food and Agriculture shall work with the Mosquito Research Program at the University of California, Davis, to determine what resources are needed to further advance the research on the ecology and the epidemiology of West Nile Virus.”³²

Local Executive Orders and Emergency Declarations for West Nile Virus

Of the EOs and emergency declarations collected, local emergency declarations were the most numerous, constituting 13 of 21 orders and declarations that were examined.³³ These local emergency declarations were issued in the following jurisdictions:

- Texarkana, Arkansas
- Glenn County, California
- Fort Collins, Colorado
- Weld County, Colorado
- Southwest Public Health District of Georgia
- Bingham County, Idaho
- LaFource Parish, Louisiana
- Madison County, New York

²⁷ Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Cal. Exec. Order S-10-07 (Aug. 13, 2007); Cal. Exec. Order S-12-07 (Sept. 12, 2007).

²⁸ Cal. Proclamation of a State of Emergency (Aug. 2, 2007).

²⁹ Cal. Exec. Order S-12-07 (Sept. 12, 2007).

³⁰ Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).

³¹ Cal. Proclamation of a State of Emergency (Aug. 2, 2007).

³² *Id.*

³³ LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002); Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003); Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003); Weld County, Colo. Board of Commissioners Resolution 2003-2407 (Aug. 20, 2003); Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006); Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007); Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007); Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009); Dallas County, Tex. Declaration of a Local State of Disaster (Aug. 9, 2012); City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012); Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012); Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012); Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

- Union County, Oregon
- Dallas County, Texas
- City of Dallas, Texas
- Denton County, Texas

While these localities issued West Nile virus emergency declarations during a wide span of years (2002 to 2015), all except for the May 5, 2009, declaration from the Southwest Public Health District of Georgia were issued in August. This suggests that while localities may be combating mosquitos during other parts of the year, the challenges they face likely reaches a peak towards the end of summer, necessitating an emergency declaration.

Unlike state-level orders and declarations for West Nile virus, which were issued exclusively by state governors, local West Nile virus emergency declarations have been issued by a wide variety of officials. Of thirteen local declarations examined, three were issued by a Board of Commissioners,³⁴ two by a county judge,³⁵ and the remainder were each issued by the chairman of the Board of Supervisors,³⁶ the mayor,³⁷ the city council and mayor together,³⁸ the mayor and Board of City Directors together,³⁹ the city manager (who is also director of the Office of Emergency Management),⁴⁰ the county health officer,⁴¹ the health district director,⁴² and the parish president.⁴³ This indicates that within US localities, responsibilities for emergency response activities for mosquito-borne threats may fall on many different types of boards and officials.

State Executive Orders and Emergency Declarations for West Nile Virus

Of the twenty-one EOs and declarations examined, six were issued at the state-level and came from two states: Louisiana (one emergency declaration and one renewal of the same)⁴⁴ and California (one emergency proclamation and three follow-up EOs).^{45, 46} Unlike the variety seen with the localities, all state-level EOs and declarations were issued by state governors. However, similar to the local declarations, all but one of the state-level West Nile virus EOs and declarations were issued in August; the exception was issued in early September as the last of California's 2007 West Nile virus outbreak EOs. This concentration of state EOs and declarations in August and September furthers the supposition

³⁴ Weld County, Colo. Board of Commissioners Resolution 2003-2407 (Aug. 20, 2003); Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006); Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007).

³⁵ Dallas County, Tex. Declaration of a Local State of Disaster (Aug. 9, 2012); Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).

³⁶ Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).

³⁷ City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012).

³⁸ Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003).

³⁹ Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012).

⁴⁰ Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).

⁴¹ Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007).

⁴² Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009).

⁴³ LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002).

⁴⁴ Louisiana Proc., State of Emergency (Aug. 2, 2002) (West Nile State of Emergency Declaration); Louisiana Proc., State of Emergency (Aug. 28, 2002) (West Nile State of Emergency Extension).

⁴⁵ Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Cal. Exec. Order S-10-07 (Aug. 13, 2007); Cal. Exec. Order S-11-07 (Aug. 20, 2007); Cal. Exec. Order S-12-07 (Sept. 12, 2007).

⁴⁶ Database searches for "West Nile virus" provided EOs addressing protection of the Greater Sage Grouse. These were excluded, as they did not relate directly to the occurrence of the West Nile virus in human populations.

that past West Nile virus outbreaks in the United States reached high enough levels to necessitate emergency declarations towards the end of summer.

While no local orders or declarations specifically allocated funds, all four of California's West Nile virus EOs and declarations, allocated funds to state and local agencies to use in responding to the outbreak.⁴⁷ California's funding orders contained the allocation of funds to local vector control agencies for a number of purposes, including to

- Conduct surveillance to provide an early warning of the incidence of West Nile virus
- Conduct active surveillance or epidemiologic investigations of human West Nile virus cases in counties identified by the department of public health to be at elevated risk of West Nile virus transmission
- Enhance and expand public education on West Nile virus prevention
- Enhance outreach to the medical community
- Identify and treat potential mosquito habitats

California's state-level EOs and proclamations also included funding allocations to state agencies to detect the spread of West Nile virus and abate mosquitoes on state-owned properties. In total, the California West Nile virus emergency proclamation and three subsequent EOs allocated \$12 million dollars to state and local agencies to combat the disease.⁴⁸

Federal Stafford Act Declarations for West Nile Virus

According to Federal Emergency Management Agency (FEMA), of the four Stafford Act declarations that have been issued under the "Virus Threat" disaster type, two have been issued for the West Nile virus.⁴⁹ These federal declarations were issued on October 11, 2000, for New York⁵⁰ and November 1, 2000, for New Jersey.⁵¹ No corresponding state declarations could be located for either the New York or New Jersey federal West Nile virus declaration.

Both the New York and New Jersey declarations were issued by the president as Stafford Act Emergency Declarations, as opposed to Major Disaster Declarations.⁵² Both declarations served to activate the federal response and appointed an official of the FEMA to act as the Federal Coordinating Officer for the emergencies. Although the text of the declarations contained in the federal register do not call for the allocation of a specific dollar amount to aid New York and New Jersey, FEMA reports on the amount allocated to each state to date on www.fema.gov/disaster/3155 and www.fema.gov/disaster/3156, and updates these numbers regularly.

⁴⁷ The two Louisiana declarations made no specific reference to allocation of funds.

⁴⁸ Cal. Proclamation of a State of Emergency (Aug. 2, 2007); Cal. Exec. Order S-10-07 (Aug. 13, 2007); Cal. Exec. Order S-11-07 (Aug. 20, 2007); Cal. Exec. Order S-12-07 (Sept. 12, 2007).

⁴⁹ FEDERAL EMERGENCY MANAGEMENT AGENCY, [Disaster Declarations](#) (last visited Jan. 15, 2015).

⁵⁰ New York; Emergency and Related Determinations (EM-3155), 65 Fed. Reg. 63589 (Oct. 24, 2000).

⁵¹ New Jersey; Emergency and Related Determinations (EM-3156), 65 Fed. Reg. 67747 (Nov. 13, 2000).

⁵² For more on the difference between Stafford Act Emergency and Major Disaster Declarations, see Francis X. McCarthy and Jared T. Brown, Congressional Research Service, R41981, [Congressional Primer on Responding to Major Disasters and Emergencies](#) (2015).

Conclusions

The analysis of local, state, and federal EOs and emergency declarations for West Nile virus provides a number of findings that could inform policy makers on what the coming months may hold for the Zika virus response.⁵³ While the overall goals of most of the actions ordered by past West Nile virus orders and declarations can be divided into four main areas (generic response, mosquito abatement, disease surveillance and reporting, and public outreach and education), within each area are very specific and unique actions to address the threats posed by the outbreak. Although most actions fell within the generic response category as opposed to mosquito abatement (42 generic response actions versus 21 mosquito abatement actions), when “declaration of an emergency” and “activation of emergency response or response plan” are removed, generic response actions only outnumber mosquito abatement by three actions ordered. This suggests that generic response actions and mosquito abatement may both be fundamental to protecting the public’s health from mosquito-borne outbreaks. Finally, the most of the EOs and emergency declarations issued were from localities, and all but three were issued in August and September, suggesting that local officials may be looked upon by their citizens to take action to respond to mosquito-borne threats during the end of summer. Although these findings constitute just a snapshot of how local, state, and federal officials used their EO and emergency declaration powers for one mosquito-borne disease, they provide an interesting glimpse into the options available for future public health responses.

Acknowledgments and Disclaimers

This document was developed by Gregory Sunshine, JD, Carter Consulting, Inc., with the Public Health Law Program (PHLP) within the Centers for Disease Control and Prevention’s Office for State, Tribal, Local and Territorial Support. The author thanks Matthew Penn, JD, MLIS, Julia Charles, JD, Abigail Ferrell, JD, Rachel Hulkower, JD, MSPH, Dawn Pepin, JD, MPH, Tara Ramanathan, JD, MPH, Allison Reddick, JD expected May 2016, and Cason Schmit, JD, with PHLP, for their research, data analysis, and editorial assistance.

PHLP provides technical assistance and public health law resources to advance the use of law as a public health tool. PHLP cannot provide legal advice on any issue and cannot represent any individual or entity in any matter. PHLP recommends seeking the advice of an attorney or other qualified professional with questions regarding the application of law to a specific circumstance.

Research and information current as of February 21, 2016.

⁵³ As discussed in the introduction, existing laws and regulations may allow localities, states, and the federal government to take action to combat mosquito-borne threats absent an EO or emergency declaration. As such, examining such executive actions provides a look at only one specific legal tool jurisdictions used to address past outbreaks. One should not assume that the lack of an EO or emergency declaration means a jurisdiction did not engage in a vigorous response to the West Nile virus.

Appendix I: Coding Categories

Categories	Example Language
Generic Response	
Declares or proclaims an emergency or disaster	<p>“Now, therefore, I, M.J. 'Mike' Foster, Jr., Governor of the state of Louisiana, under authority of Louisiana Assistance Disaster Act of 1993 (as amended), do hereby declare a State of Emergency for the State of Louisiana.” Louisiana Proc., State of Emergency (Aug. 2, 2002) (West Nile State of Emergency Declaration).</p>
Extends previous executive order or declaration	<p>“Now, therefore, I, M.J. 'Mike' Foster, Jr., Governor of the state of Louisiana, under authority of Louisiana Assistance Disaster Act of 1993 (as amended), do hereby declare a State of Emergency issued August 1, 2002 for the State of Louisiana be extended through October 31, 2002.” Louisiana Proc., State of Emergency (Aug. 28, 2002) (West Nile State of Emergency Extension).</p>
Activates response or plan	<p>“[D]o hereby proclaim . . . that any/all applicable Emergency Operations Plans be activated . . .” LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002).</p>
Designate emergency management agency or emergency management official as lead for response	<p>“I hereby appoint Michael Byrne of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared emergency.” New York; Emergency and Related Determinations (EM-3155), 65 Fed. Reg. 63589 (Oct. 24, 2000).</p>



<p>Broad activation of all available powers</p>	<p>“Accordingly, I further proclaim . . . the activation of all other charter, statutory, and ordinance powers vested in me and all officers of the City of Dallas to act for the purposes stated.” City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012).</p>
<p>Disaster funds available for response</p>	<p>“In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes, such amounts as you find necessary for Federal disaster assistance and administrative expenses.” New Jersey; Emergency and Related Determinations (EM-3156), 65 Fed. Reg. 67747 (Nov. 13, 2000).</p>
<p>Interagency coordination required</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall coordinate with the State and Consumer Services Agency, the Resources Agency and the Department of Food and Agriculture. . .” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>Requests state assistance for response and mitigation support</p>	<p>“1. Request State Assistance for Response and Mitigation Support to combat West Nile Virus” Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).</p>
<p>Requests governor to declare emergency for county</p>	<p>“It is further declared that since the state of emergency exists, the Union County Board of Commissioners does hereby request and entreat the Governor of the State of Oregon to declare a Disaster and ask the Oregon Department of Emergency Management to declare that a Disaster exists in Union County, Oregon and provide assistance.” Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007).</p>

<p>Requests appropriate federal officials to make declaration and provide assistance to county</p>	<p>“2. Such disaster/emergency requires State and Federal emergency assistance to supplement local efforts to control and/or eradicate the mosquito population in Bingham County and to avert and lessen the threat and impact of the current disaster.” Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006).</p>
<p>Suspends state purchasing/procurement and contracting requirements</p>	<p>“IT IS FURTHER ORDERED that the provisions of the Government Code, the Public Contract Code, the State Contracting Manual and Management Memo 03-10, along with all Department of Public Health policies, applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements and approvals for non competitively bid contracts, are hereby temporarily suspended with respect to contracts to implement this Executive Order to the extent that such laws would prevent, hinder or delay prompt mitigation of the effects of this emergency.” Cal. Exec. Order S-12-07 (Sept. 12, 2007).</p>
<p>Mosquito Abatement</p>	
<p>Pesticide application: generally</p>	<p>"Now, therefore, be it resolved by the Board of Directors of the City of Texarkana, Arkansas... that the City immediately begin pesticide application to control mosquitoes based on a significant risk to human health . . . ” Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012).</p>
<p>Pesticide application: mosquito spraying operations from streets, right-of-ways, and property deemed high risk</p>	<p>“[T]he City will conduct mosquito spraying operations from City streets, right-of-ways, and property in those areas of the City deemed to be high risk for the presence of mosquitoes infected with West Nile Virus.” Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).</p>

<p>Pesticide application: larvicide in ponds, lakes, and water bodies, including on private property, that are likely to constitute breeding grounds for mosquitos</p>	<p>“[T]he City will conduct mosquito larvicide operations by placing larvicide in those ponds, lakes, and other water bodies within the City, including those on private property, that are likely to constitute breeding grounds for mosquitoes that could be infected with West Nile Virus.” Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).</p>
<p>Allocate funds to local vector control agencies to identify potential mosquito habitat and to treat those areas</p>	<p>“IT IS ORDERED that the Department of Public Health shall allocate up to an additional \$10 million, as needed, to local vector control agencies to identify potential mosquito habitat and to treat those areas to prevent the spread of West Nile Virus . . .” Cal. Exec. Order S-10-07 (Aug. 13, 2007).</p>
<p>State health department required to work with local vector control districts to use their existing power to inspect and abate vector or public nuisances, with special emphasis on the removal of standing water in untended pools and containers on vacant property</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall work with (1) local vector control districts to utilize their existing power pursuant to Health and Safety code section 2053 to inspect and abate vector or public nuisances, with special emphasis on the removal of standing water in untended pools and containers on vacant property . . .” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>State health department required to work with the business, transportation and housing agencies and local public health departments to notify lenders, realtors, mortgage brokers and others whose responsibilities include managing vacant homes to ensure that pools and other containers that can hold water are drained and maintained empty to prevent the spread of West Nile virus</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall work with . . . (2) the Business, Transportation and Housing Agency and local public health departments to notify lenders, realtors, mortgage brokers and others whose responsibilities include managing vacant homes to ensure that pools and other containers that can hold water are drained and maintained empty to prevent the spread of West Nile Virus.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>

<p>State health department shall implement a supplemental program of mosquito control, including health advisories and technical assistance, in the above-listed counties to assist those counties and the mosquito and vector control agencies within those regions to minimize the proliferation of mosquitoes and to reduce the transmission of West Nile virus</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall implement a supplemental program of mosquito control, including health advisories and technical assistance, in the above-listed counties to assist those counties and the mosquito and vector control agencies within those regions to minimize the proliferation of mosquitoes and to reduce the transmission of West Nile Virus.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>State health department shall, in consultation with localities, enter into contracts to provide West Nile mitigation assistance</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health enter into such contracts as it deems appropriate, in consultation with the above-listed counties and the mosquito and vector control agencies within those regions, to provide services, material, personnel and equipment to supplement the West Nile Virus mitigation efforts in those jurisdictions.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>State health department must consult with state agriculture department before "prohibited materials" are applied to organic farmland</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall consult with the county agricultural commissioner prior to the application of "prohibited materials," as defined in subdivision (p) of section 110815 of the Health and Safety Code, to agricultural land used for the production of certified organic foods.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>Allocates funds to state fish and game agency to use for vegetation management of state-managed wetland wildlife areas</p>	<p>“IT IS ORDERED that the Department of Public Health shall allocate up to \$500,000 in additional funds to the Department of Fish and Game. The Department of Fish and Game shall use these funds for vegetation management on the following wetland wildlife areas managed by the Department of Fish and Game and located in counties determined by the Department of Public Health to be at high risk of West Nile Virus transmission . . .” Cal. Exec. Order S-11-07 (Aug. 20, 2007).</p>

<p>State fish and game agency required to consult with state health department on best practices for vegetation management to prevent West Nile virus</p>	<p>“The Department of Fish and Game shall consult with the Department of Public Health regarding best practices for vegetation management to prevent West Nile Virus, including best water management practices, vegetation control, wetland infrastructure maintenance, wetland enhancement features, and biological controls.” Cal. Exec. Order S-11-07 (Aug. 20, 2007).</p>
<p>Locality-to-locality coordination required to identify high risk areas for adult mosquitos and breeding grounds</p>	<p>“The City will work closely with Larimer County and the Larimer County Department of Health and Environment to (1) identify high risk areas for the presence of mosquitoes infected with West Nile Virus and those ponds, lakes, and other water bodies likely to constitute breeding grounds for mosquitoes that could be infected with West Nile Virus . . .” Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).</p>
<p>Locality-to-locality coordination required to ensure spraying and larvicide minimizes risk to health</p>	<p>“The City will work closely with Larimer County and the Larimer County Department of Health and Environment to . . . (2) ensure the use of spraying and larviciding techniques that will minimize the risk of health.” Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).</p>
<p>Counties authorized to enter into intergovernmental agreement with neighboring county to larvicide ponds, lakes, and other bodies of water</p>	<p>“That the City Manager is hereby authorized to enter into an intergovernmental agreement with Larimer County for the larviciding of ponds, lakes, and other bodies of water . . .” Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003).</p>

Disease Surveillance and Reporting	
<p>Allocate funds to local vector control agencies for surveillance purposes to provide an early warning of the incidence of West Nile virus</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall allocate up to \$350,000 to local vector control agencies for surveillance purposes to provide an early warning of the incidence of West Nile Virus so that proper control measures can be taken by the local vector control agencies to prevent the spread of West Nile Virus in the three above listed counties and other counties identified by the Department of Public Health.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>
<p>Allocate funds to local vector control agencies to conduct active surveillance or epidemiological investigations of human West Nile Virus cases in counties identified by the state health department to be at elevated risk of West Nile virus transmission</p>	<p>“IT IS ORDERED that the Department of Public Health shall allocate funds previously provided through the Governor’s August 2, 2007 Emergency Proclamation and Executive Order S-10-07, as needed, to local agencies involved with West Nile Virus response to . . . (3) conduct active surveillance or epidemiological investigations of human West Nile Virus cases in counties identified by the Department of Public Health to be at elevated risk of West Nile Virus transmission.” Cal. Exec. Order S-12-07 (Sept. 12, 2007).</p>
<p>Orders development of plan for early detection of West Nile on state-owned property</p>	<p>“IT IS FURTHER ORDERED that the Department of Public Health shall coordinate with the State and Consumer Services Agency, the Resources Agency and the Department of Food and Agriculture to develop a plan using best management practices for implementation by the appropriate state agencies for the early detection of West Nile Virus on state-owned properties and appropriate mitigation and abatement measures. Funds in the amount up to \$150,000 shall be allocated for the purpose of developing this plan.” Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>

Public Outreach and Education	
Allocate funds to local vector control agencies to enhance and expand public education on West Nile virus prevention	<p>“IT IS ORDERED that the Department of Public Health shall allocate funds previously provided through the Governor’s August 2, 2007 Emergency Proclamation and Executive Order S-10-07, as needed, to local agencies involved with West Nile Virus response to (1) enhance and expand public education on West Nile Virus prevention . . .”</p> <p>Cal. Exec. Order S-12-07 (Sept. 12, 2007).</p>
Allocate funds to local vector control agencies to enhance outreach to the medical community	<p>“IT IS ORDERED that the Department of Public Health shall allocate funds previously provided through the Governor’s August 2, 2007 Emergency Proclamation and Executive Order S-10-07, as needed, to local agencies involved with West Nile Virus response to . . . (2) enhance outreach to the medical community”</p> <p>Cal. Exec. Order S-12-07 (Sept. 12, 2007).</p>
Orders public notice, outreach, and education	<p>“Now, therefore, this Disaster Declaration and the following Executive Order regulations shall take effect . . . : . . . 2. Continue Public Outreach and Education.”</p> <p>Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).</p>
Unclassified West Nile Virus Response Actions	
State health must work with local health departments to minimize the incidents of Valley Fever	<p>“IT IS FURTHER ORDERED that the Department of Public Health work with local public health departments to take appropriate actions to minimize the incidents of Valley Fever in the above-listed counties.”</p> <p>Cal. Proclamation of a State of Emergency (Aug. 2, 2007).</p>

Agencies required to work with university mosquito research program to determine what resources are needed to further advance the research on the ecology and the epidemiology of West Nile virus

“IT IS FURTHER ORDERED that the Department of Public Health and the Department of Food and Agriculture shall work with the Mosquito Research Program at the University of California, Davis, to determine what resources are needed to further advance the research on the ecology and the epidemiology of West Nile Virus.”
Cal. Proclamation of a State of Emergency (Aug. 2, 2007).

Appendix II: West Nile Virus Executive Orders and Declarations

Executive Order or Emergency Declaration	Link
New York; Emergency and Related Determinations (EM-3155), 65 Fed. Reg. 63589 (Oct. 24, 2000).	www.gpo.gov/fdsys/pkg/FR-2000-10-24/pdf/00-27210.pdf
New Jersey; Emergency and Related Determinations (EM-3156), 65 Fed. Reg. 67747 (Nov. 13, 2000).	www.gpo.gov/fdsys/pkg/FR-2000-11-13/pdf/00-29005.pdf
Louisiana Proc., State of Emergency (Aug. 2, 2002) (West Nile State of Emergency Declaration).	Link not available.
LaFource Parish, La. State of Emergency Proclamation, 920744 (Aug. 13, 2002).	Link not available.
Louisiana Proc., State of Emergency (Aug. 28, 2002) (West Nile State of Emergency Extension).	Link not available.
Fort Collins, Colo. West Nile Emergency Declaration (Aug. 18, 2003).	http://fccan.org/sites/fccan.org/files/131698_8-19-03_wnv_emergency_declaration.pdf
Council of the City of Fort Collins, Colo. Resolution 2009-097 (Aug. 19, 2003).	http://fccan.org/sites/fccan.org/files/131698_8-19-03_wnv_emergency_declaration.pdf
Weld County, Colo. Board of Commissioners Resolution 2003-2407 (Aug. 20, 2003).	Link not available.



Bingham County, Idaho Board of Commissioners Resolution 2006-20, Disaster Declaration Resolution (Aug. 24, 2006).	Link not available.
Union County, Or. Board of Commissioners Resolution 2007-19 (Aug. 1, 2007).	Link not available.
Cal. Proclamation of a State of Emergency (Aug. 2, 2007).	www.cdph.ca.gov/HealthInfo/discond/Documents/WNV%20state%20of%20Emergency%202007Final.pdf
Glenn County, Cal. Resolution 2007-52 (Aug. 2, 2007).	http://glenncounty.granicus.com/MetaViewer.php?view_id=9&clip_id=506&meta_id=77490
Cal. Exec. Order S-10-07 (Aug. 13, 2007).	www.cdph.ca.gov/HealthInfo/discond/Documents/WNV%20state%20of%20Emergency%202007Final.pdf
Cal. Exec. Order S-11-07 (Aug. 20, 2007).	www.cdph.ca.gov/HealthInfo/discond/Documents/WNV%20state%20of%20Emergency%202007Final.pdf
Cal. Exec. Order S-12-07 (Sept. 12, 2007).	www.cdph.ca.gov/HealthInfo/discond/Documents/WNV%20state%20of%20Emergency%202007Final.pdf
Southwest Public Health District, Ga., Declaration of Public Health Emergency (May 4, 2009).	http://bainbridgega.com/news/publish/0505mosquito.shtml
Dallas County, Tex. Declaration of a Local State of Disaster (Aug. 9, 2012).	Link not available.

City of Dallas, Tex. Proclamation of Emergency 122063 (Aug. 15, 2012).	http://citysecretary.dallascityhall.com/resolutions/2012/08-15-12/12-2063.PDF
Denton County, Tex. Exec. Order MH-08-12 (Aug. 22, 2012).	http://dentoncounty.granicus.com/MetaViewer.php?view_id=26&clip_id=287&meta_id=52314
Texarkana, Ark. Resolution No. 5922 (Aug. 23, 2012).	http://arkagenda.txkusa.org/
Madison County, N.Y. State of Emergency Declaration (Aug. 10, 2015).	Link not available.