



**Local Agency Formation Commission of Napa County**  
Subdivision of the State of California

1030 Seminary Street, Suite B  
Napa, California 94559  
Phone: (707) 259-8645  
Fax: (707) 251-1053  
www.napa.lafco.ca.gov

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*We Manage Local Government Boundaries, Evaluate Municipal Services, and Protect Agriculture*

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**Agenda Item 8a (Discussion)**

**TO:** Local Agency Formation Commission

**PREPARED BY:** Brendon Freeman, Executive Officer

**MEETING DATE:** April 3, 2017

**SUBJECT:** Draft Municipal Service Review and Sphere of Influence Update for the Napa County Mosquito Abatement District

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**RECOMMENDATION**

It is recommended the Commission discuss the attached draft Municipal Service Review (MSR) and Sphere of Influence (SOI) Update for the Napa County Mosquito Abatement District (NCMAD) and provide direction for possible further development of the draft report prior to public hearing and action on a final report at a future meeting.

**SUMMARY**

In accordance with its adopted Work Program, staff has prepared a draft report representing its scheduled municipal service review and sphere of influence update for NCMAD. The draft report succeeds the last municipal service review and sphere of influence update prepared by the Commission for NCMAD completed in May 2010. The draft report is organized into two principal sections. The first section is an executive summary that includes determinations addressing the factors required for both the MSR and SOI Update mandates. The second section provides a comprehensive review of NCMAD in terms of its formation and development, population and growth, organizational structure, municipal service provision, financial standing, and regional comparisons. The draft report recommends affirming NCMAD's sphere of influence with no changes. A copy of the draft report was made available to the public for review on March 10, 2017. Comments on the draft report are welcome through April 21, 2017.

Commissioners are encouraged to provide feedback to staff on the scope and contents of the draft report. This may include requesting additional analysis. Unless otherwise directed, staff anticipates presenting a final report, with or without revisions, to the Commission for consideration at its June 5, 2017 meeting.

**ATTACHMENT**

- 1) Draft Municipal Service Review and Sphere of Influence Update for NCMAD
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Juliana Inman, Vice Chair  
Councilmember, City of Napa

Paul Dohring, Commissioner  
Councilmember, City of St. Helena

Kenneth Leary, Alternate Commissioner  
Councilmember, City of American Canyon

Diane Dillon, Chair  
County of Napa Supervisor, 3rd District

Brad Wagenknecht, Commissioner  
County of Napa Supervisor, 1st District

Ryan Gregory, Alternate Commissioner  
County of Napa Supervisor, 2nd District

Brian J. Kelly, Commissioner  
Representative of the General Public

Gregory Rodeno, Alternate Commissioner  
Representative of the General Public

Brendon Freeman  
Executive Officer



**LOCAL AGENCY FORMATION COMMISSION OF NAPA COUNTY**  
Political Subdivision of the State of California

*We Manage Government Boundaries, Evaluate Municipal Services, and Protect Agriculture*

**NAPA COUNTY MOSQUITO ABATEMENT DISTRICT  
MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE**

Prepared in accordance with Government Code Sections 56425 and 56430

**Draft Report**

April 2017



LAFCO of Napa County  
**Overseeing the**  
*logical formation and development*  
of cities and special districts.

**Commissioners**

Diane Dillon, Chair, County Member  
Juliana Inman, Vice Chair, City Member  
Paul Dohring, Commissioner, City Member  
Brian J. Kelly, Commissioner, Public Member  
Brad Wagenknecht, Commissioner, County Member  
Kenneth Leary, Alternate Commissioner, City Member  
Ryan Gregory, Alternate Commissioner, County Member  
Gregory Rodeno, Alternate Commissioner, Public Member

**Staff / Administrative Office**

Brendon Freeman, Executive Officer  
Kathy Mabry, Commission Secretary  
Jennifer Gore, Commission Counsel

1030 Seminary Street, Suite B  
Napa, California 94559  
[www.napa.lafco.ca.gov](http://www.napa.lafco.ca.gov)

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## **I. INTRODUCTION**

### **A. Local Agency Formation Commissions**

Local Agency Formation Commissions (LAFCOs) are political subdivisions of the State of California and are responsible for administering a section of Government Code known as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. LAFCOs are located in all 58 counties in California and delegated regulatory and planning responsibilities to coordinate the logical formation and development of local governmental agencies and their services while protecting agricultural and open space resources.

### **B. Municipal Service Reviews**

As part of the aforementioned Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, LAFCOs are required to prepare municipal service reviews in conjunction with updating each local agency's sphere of influence ("sphere") every five years as needed. The legislative intent of municipal service reviews is to inform LAFCOs with regard to the availability and sufficiency of governmental services provided within their respective jurisdictions prior to making sphere determinations. Municipal service reviews vary in scope and can focus on a particular agency, service, or geographic region. Municipal service reviews may also lead LAFCO to take other actions under its authority, such as initiating a reorganization involving two or more special districts. All municipal service reviews, however, must include written statements making determinations with respect to the following seven factors pursuant to Government Code (G.C.) Section 56340.

1. Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.
2. The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.
3. Growth and population projections for the affected area.
4. Financial ability of agencies to provide services.
5. Status of, and opportunities for, shared facilities.
6. Accountability for community service needs, including governmental structure and operational efficiencies.
7. Any other matter related to effective or efficient service delivery, as required by commission policy.

### **C. Sphere of Influence Updates**

As mentioned, a central planning responsibility for LAFCO is the determination of a sphere for each city and special district under its jurisdiction.<sup>1</sup> LAFCO establishes, amends, and updates spheres to designate the territory it believes represents the appropriate and probable future service area and jurisdictional boundary of the affected agency. All jurisdictional

"Sphere" means a plan for the probable physical boundary and service area of a local agency, as determined by LAFCO.

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<sup>1</sup> LAFCOs have been required to determine spheres for cities and special districts within its jurisdiction since 1972.

changes, such as annexations and detachments, as well as outside service extensions, must be consistent with the spheres of the affected local agencies with limited exceptions.<sup>2</sup>

There are several important and distinct policy considerations underlying sphere determinations. For example, inclusion within a multi-purpose agency's sphere, such as a city or community services district, generally indicates an expectation by LAFCO the territory should be developed for urban uses. Inclusion of territory within a limited-purpose agency's sphere, such as a hospital or mosquito abatement district, in contrast may be intended to support both urban and non-urban uses. In addition, inclusion within a sphere does not provide any guarantees the territory will be annexed. Jurisdictional changes must be considered on their own merits with particular attention focused on assessing whether the timing of the proposed action is appropriate. Sphere determinations may also lead LAFCO to take other actions under its authority. This may include initiating the consolidation or dissolution of cities and special districts.

In making a sphere determination, LAFCO must prepare written statements addressing four specific planning factors listed under G.C. Section 56425. These factors range from evaluating current and future land uses to the existence of pertinent communities of interest. The intent in preparing the written statements is to capture the legislative intent of the sphere determination with regard to coordinating the sensible development of each local agency consistent with the anticipated needs of the affected community. The four factors are outlined below.

1. The present and planned land uses in the area, including agricultural and open-space lands.
2. The present and probable need for public facilities and services in the area.
3. The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.
4. The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

#### **D. Napa County Mosquito Abatement District**

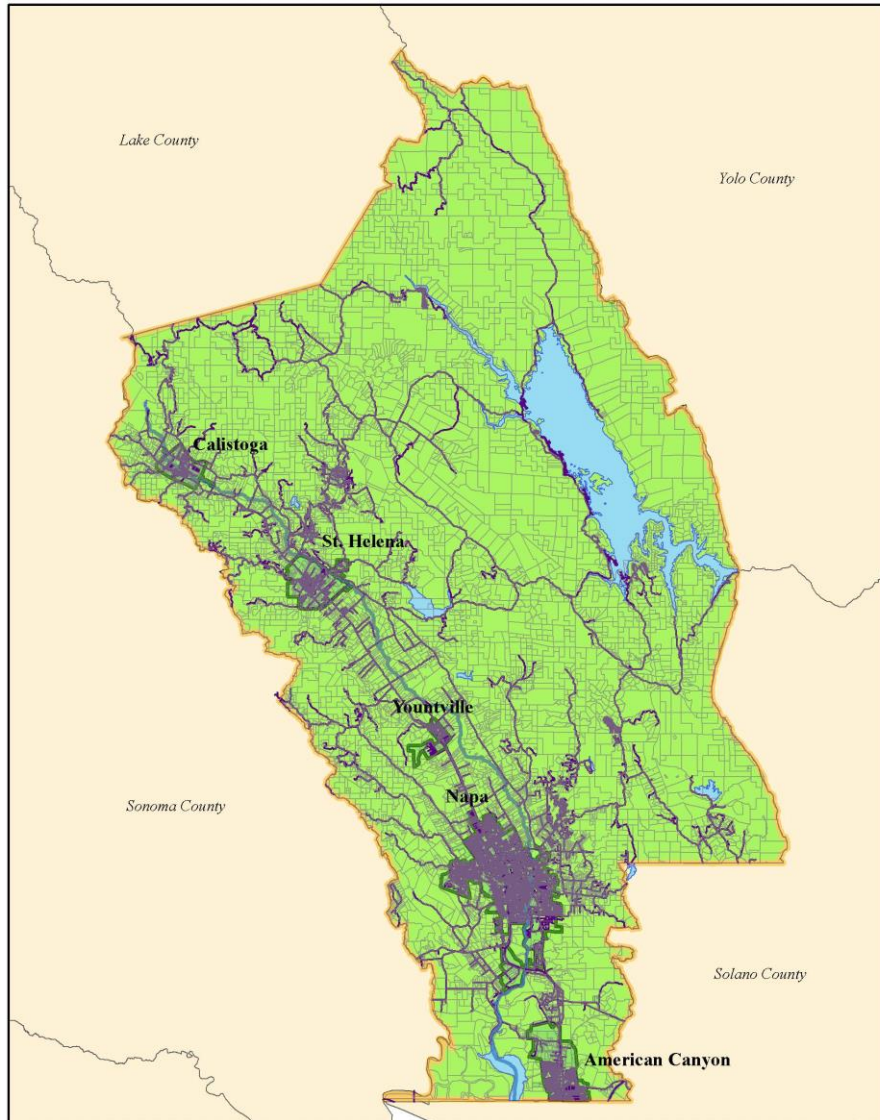
This report represents LAFCO of Napa County's ("Commission") scheduled municipal service review and sphere update of the Napa County Mosquito Abatement District (NCMAD). The report succeeds the last municipal service review and sphere update prepared by the Commission on NCMAD completed in 2010. The report has been prepared in a manner consistent with the Commission's *Policy on Municipal Service Reviews* and is organized into two principal sections. The first section is an executive summary that includes determinations addressing the factors required for both the municipal service review and sphere update mandates. The second section provides a comprehensive review of NCMAD in terms of its formation and development, population and growth, organizational structure, municipal service provision, financial standing, and regional comparisons. Standard service indicators are incorporated into the review when appropriate to help contextualize and evaluate service levels.

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<sup>2</sup> An exception involves land owned and used by cities for municipal purposes that are non-contiguous to their incorporated boundary (Government Code Section 56742).

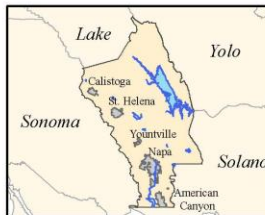
Figure One

### Napa County Mosquito Abatement District





**Legend**

-  Napa County Mosquito Abatement District Jurisdictional Boundary
-  Napa County Mosquito Abatement District Sphere of Influence



*Not to Scale*  
*February 2017*  
*Prepared by BF*



**LAFCO of Napa County**  
1030 Seminary Street, Suite B  
Napa, California 94559  
<http://www.napa.lafco.ca.gov>



## **II. EXECUTIVE SUMMARY**

### **A. Municipal Service Review**

The municipal service review indicates NCMAD has generally established adequate administrative, service, and financial capacities to provide an appropriate level of vector control services within its existing jurisdictional boundary, Napa County. These capacities appear relatively sufficient to continue to provide effective services based on anticipated demands in the timeframe of this review. No pertinent concerns have been identified relative to NCMAD's ability to continue to provide services for which it has been formed. Statements addressing the factors prescribed for consideration ranging from infrastructure needs and deficiencies to relationships with growth management policies follow. These statements are based on information collected, analyzed, and presented in the agency review provided on pages 13 to 28 in this report.

#### **1. Growth and population projections for the affected area.**

- a) NCMAD has experienced nearly a one-tenth increase in its resident population over the last 10 years from an estimated 131,330 to 142,028. It is reasonable to assume the rate of population growth will slightly decrease over the next 10 years due primarily to a modest slowdown in residential growth in the Cities of American Canyon and Napa. This assumption is consistent with projections issued by the Association of Bay Area Governments and suggests NCMAD's resident population will reach 148,600 by 2025.
- b) Nearly two-fifths of the increase to NCMAD's resident population over the last 10 years is attributed to the development of the City of American Canyon. This new growth in American Canyon necessitates NCMAD continue to be proactive in abating mosquitoes due to the diminishing interface between urban and wetland uses in the south County region.
- c) California Department of Finance projects Napa County will continue to experience significant demographic changes as groups identified as non-whites become the majority by 2020. These changes present challenges for NCMAD as it will need to adapt and expand its services to bridge more social and cultural barriers to help ensure its effectiveness in preventing and controlling vectors and their diseases.
- d) California Department of Conservation reports NCMAD is experiencing a steady rate of urbanization as evident by the one-tenth increase in urban land uses over the last 10 years in Napa County. Continued urbanization will increase service demands by necessitating NCMAD focus more on labor intensive control activities, such as physical and biological, in response to prevalent citizenry concerns regarding chemical impacts on the environment.

#### **2. The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.**

- a) No disadvantaged unincorporated communities have been identified within or contiguous to NCMAD's sphere of influence.

**3. Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.**

- a) NCMAD has established an adequate level of vector control services to limit the effects of mosquitoes, yellowjackets, rodents, and ticks consistent with constituent preferences as evident by a recently approved special assessment.
- b) There has been a concerted effort made by NCMAD to proactively provide vector control services through self-initiated field work. With the exception of anomalous years (2005-2006 and 2015-2016), the number of service calls has remained consistent over the last 12 years.
- c) NCMAD's service demands are guided by a variety of seasonal, environmental, and land use factors. NCMAD has prepared an Integrated Mosquito and Vector Management Program Environmental Impact Report (EIR) that includes a written review of its service activities to help effectively and economically guide the use of its available resources to reflect the continuous changes in these external factors. This document serves as a valuable resource to Napa County's six land use authorities in understanding vector-related trends in relationship to overseeing growth and development within their respective jurisdictions. The Programmatic EIR is available on the District's website, [www.napamosquito.org](http://www.napamosquito.org).
- d) NCMAD's resources generally fall within the average range of adjacent public vector control service providers as measured by staffing, revenues, and expenses, which suggest the District's service levels are comparable to regional standards.

**4. Financial ability of agencies to provide services.**

- a) NCMAD has increased its unrestricted fund balance by more than one-tenth over the last five years from approximately \$3.03 to \$3.41 million. The unrestricted fund balance provides NCMAD with approximately 15 months of cash to cover operating expenses as well as financial resources to respond to urgent public health or safety threats.
- b) The dynamic nature of vector control services underlies and supports NCMAD's management decision to maintain a relatively high unrestricted fund balance rather than invest in fixed capital assets.
- c) NCMAD has established a healthy capital structure as measured by its low debt-to-equity ratio, which is less than one percent.
- d) NCMAD has maintained overall positive cash flow since it began collecting its special assessment in 2003-2004. The cash flow margin is trending negatively as the rate of changes in actual expenditures is surpassing the rate of changes in actual revenues by nearly three-to-one since the special assessment was implemented. It appears this trend, however, is an anomaly and the result of one-time expenses over the last few years associated with NCMAD's new facilities as well as pre-funding its other post-employment benefit costs and pension liabilities, which are currently more than 90% funded.

- e) NCMAD benefits from a relatively stable source of funding given approximately 95% of all revenues are drawn from property tax and special assessment proceeds.

**5. Status and opportunities for shared facilities.**

- a) NCMAD works closely with a variety of federal, state, and local agencies in the development, operation, and delivery of its vector control services. This includes resource-sharing arrangements with the Marin-Sonoma and Solano Mosquito Abatement Districts. These efforts help economize staffing resources and coordinate the implementation of effective vector control services in the region.
- b) NCMAD has established formal agreements with the Cities of American Canyon, Calistoga, Napa, St. Helena, and Yountville along with the Napa County Flood Control and Water Conservation District and Napa Sanitation District to provide regular vector control services within their respective incorporated jurisdictions. NCMAD should consider expanding the scope of these agreements to include arrangements with the remaining local water and sewer special districts to help increase protection for unincorporated residential communities.

**6. Accountability for community service needs, including governmental structure and operational efficiencies.**

- a) NCMAD is governed by a responsive and dedicated board and staff. These characteristics enhance accountability and cultivate positive working relationships with members of the public and other local agencies.
- b) NCMAD currently has an adequate level of organizational capacity that reflects and supports management's commitment to proactively control vectors and vector-borne diseases in Napa County.
- c) Vector control services provided by NCMAD are currently limited to mosquitoes, yellowjackets, rodents, and ticks. All other services authorized under NCMAD's principal act are deemed latent and would require Commission approval to activate under Government Code Section 56824.12. Divestiture of any current services would also require Commission approval.
- d) NCMAD occasionally provides vector control services within adjacent outside lands through informal resource-sharing arrangements with the Marin-Sonoma and Solano Mosquito Abatement Districts. It appears NCMAD provides these services as comparable substitutes for services already provided by the two adjacent agencies and therefore does not require Commission approval under Government Code Section 56133. Approval is only required if services are provided beyond existing levels of the affected agencies.
- e) It may be appropriate to amend NCMAD's sphere to expand into Solano and Sonoma counties if the District's vector control services within these adjacent lands expand from an occasional to a regular activity.

- f) NCMAD's board meetings are conducted monthly with minimal participation from the public. The limited public participation reflects a degree of disengagement between NCMAD and its constituents and impedes feedback on new or changing vector control needs. NCMAD has recently made efforts to increase its constituent engagement by expanding the scope and value of its website to include meeting notices, agendas, minutes, and other pertinent documents underlying its activities. NCMAD also utilizes local radio and newspaper advertisements throughout each season to help keep the County citizenry informed.

**7. Relationship with regional growth goals and policies.**

- a) NCMAD serves an important role in supporting growth management in Napa County by providing public health and safety protection against mosquitoes, yellowjackets, rodents, and ticks. This importance is accentuated given local land use policies generally orient residential and viticultural uses along common vector breeding grounds, namely the Napa River and its tributaries. Accordingly, it is imperative NCMAD continue to ensure its resources are sufficient to carry out its duties in an effective and timely manner.

## **B. Sphere of Influence Update**

No changes to NCMAD's sphere of influence appear warranted. This affirmation confirms the current sphere of influence designation demarks NCMAD's appropriate service boundary consistent with its available and planned capacities. This determination is supported by the following statements.

### **1. Present and planned land uses in the area, including agricultural and open-space lands.**

The present and planned land uses within the sphere of influence are outlined in the general plans prepared by the six land use authorities whose jurisdictions overlap NCMAD's jurisdictional boundary. The exercise of NCMAD's vector control services relating to mosquitoes, yellowjackets, rodents, and ticks support the urban and non-urban development contemplated in these general plans.

### **2. Present and probable need for public facilities and services in the area.**

NCMAD's provision of vector control services relating to mosquitoes, yellowjackets, rodents, and ticks in the sphere of influence is an integral component in supporting present and future growth management in Napa County.

### **3. Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.**

The Commission has confirmed through the municipal service review process NCMAD has established adequate and effective vector control services relating to mosquitoes, yellowjackets, rodents, and ticks within the sphere of influence.

### **4. The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.**

The social and economic well-being of all communities within the sphere of influence is dependent on NCMAD's effective control of vector organisms such as mosquitoes, yellowjackets, rodents, and ticks. NCMAD's vector management activities significantly influence both tourism and viticulture in the Napa Valley. Tourism is an essential element of revenues and employment within Napa County. A significant outbreak of vector-borne disease within Napa Valley could result in declines for tourism due to public concerns about vectors and vector-borne disease. Any reductions in tourism would negatively impact revenues for local governments and businesses.

### III. AGENCY REVIEW

#### A. Napa County Mosquito Abatement District

##### 1.0 District Profile

Type of District:	Mosquito Abatement and Vector Control District
Principal Act:	Health and Safety Code Sections 2000 to 2093
Functions/Services:	Control vectors and vector-borne diseases
Main Office:	15 Melvin Road, American Canyon, CA 94503
Phone No.:	(707) 553-9610
Web Site:	<a href="http://www.napamosquito.org">www.napamosquito.org</a>
District Manager:	Wes Maffei
Governing Body:	Six Member Board of Trustees (registered-voter system)
Meeting Schedule:	Second Wednesday of every month at 7:00 p.m.
Meeting Location:	15 Melvin Road, American Canyon, CA 94503
Date of Formation:	1925
Principal County:	Napa County
District Boundary:	506,517 acres
District Sphere:	506,517 acres
2016-2017 Budget:	\$2,217,039
District Board Members:	Frank Cabral, Acting President (County at large) Charles Carbone, Acting Secretary (Napa) Brian Cramer, Trustee (St. Helena) Penny Johnson, Secretary (American Canyon) Steven Rosa, Trustee (Yountville) Anne Shelby Valentine, President (Calistoga)

## 2.0 Overview

NCMAD was formed in 1925 and is the longest tenured special district operating in Napa County. NCMAD provides a range of municipal services relating to vector control involving mosquitoes, yellowjackets, rodents, and ticks. NCMAD is headquartered in the City of American Canyon and has a jurisdictional boundary encompassing all unincorporated and incorporated territory in Napa County. The estimated resident service population is 142,028. NCMAD is currently staffed by eight full-time employees with a total operating budget of \$2.2 million and an unrestricted fund balance of \$3.4 million.<sup>3</sup>

## 3.0 Formation and Development

NCMAD was formed in 1925 to provide mosquito control services throughout Napa County. Formation proceedings were prompted in the early 1920s by the emergence of mosquitoes in the southern portions of the county, an area characterized by numerous wetlands and salt marshes. Two local organizations, Carneros Farm Center and Las Amigas Farm Bureau, combined efforts to address the threat of mosquito-borne diseases by galvanizing support for the formation of a mosquito abatement district. The formation had been recently permitted by the California Legislature with the passage of the Mosquito Abatement District Act of 1915. This law was enacted by legislators to facilitate the formation of public agencies capable of providing long-term protection against vector-borne diseases, such as malaria and encephalitis, and other vector organisms.<sup>4</sup> Following resolutions supporting formation adopted by the three cities (Calistoga, Napa, and St. Helena), the County Board of Supervisors adopted a resolution establishing NCMAD on July 14, 1925.

In 1926, NCMAD conducted the first comprehensive mosquito survey of Napa County. The survey preceded the implementation of physical control measures as part of a coordinated mosquito management program. Standard control measures utilized by NCMAD over the next several decades included building dikes and levees along with ditching and plowing cracked ground in the southeast region. NCMAD also began to augment its activities to include chemical and biological controls, such as applying oils and pesticides as well as stocking local ponds with mosquitofish.<sup>5</sup>

By the 1960s, advances in chemical engineering along with cost-savings prompted NCMAD to begin relying less on physical control measures in favor of emphasizing pesticides to control larval, pupal, and adult mosquitoes. In particular, this included the increasing reliance on dichlorodiphenyltrichloroethane, or DDT.<sup>6</sup> By the 1970s, however, new federal and state regulations, along with increased public concern regarding the use of chemicals on the environment, prompted a significant change in NCMAD activities. Most notably, in order to minimize its use of pesticides, NCMAD began to emphasize the control of immature rather than adult mosquitoes. This change resulted in a renewed emphasis on mosquito prevention through physical and biological control measures as well as community education.

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<sup>3</sup> This results in a per capita operating cost of \$15.61.

<sup>4</sup> California Health and Safety Code defines “vector” as any animal capable of transmitting a human disease or producing human discomfort or injury, including, but not limited to, mosquitoes, flies, mites, ticks, other arthropods, rodents, and other vertebrates (Health and Safety Code Section 2002(k)).

<sup>5</sup> These labor-intensive activities were conducted with assistance from local inmates who were used frequently by NCMAD as a supplemental work force. This practice, however, was discontinued in the 1950s due to increased public concern over the use of inmate labor.

<sup>6</sup> DDT was banned by the United States Environmental Protection Agency in 1973.

A seminal moment for NCMAD occurred in 1978 with the passage of Proposition 13. This ballot initiative amended the California Constitution to restrict the ad valorem tax on property to no more than one percent of the full cash value.<sup>7</sup> The restriction prohibited NCMAD from continuing its annual practice of adjusting its property tax rate as needed to cover costs. The resulting reduction in property tax proceeds coupled with increasing costs contributed to a persistent structural budget imbalance. Consequently, NCMAD reduced its staffing level by 50% and also became dependent on County loans to help cover annual deficits through the early 1990s.

In the late 1990s, NCMAD took a series of steps to solidify its fiscal solvency and improve its mosquito management program. This included developing a service program with local landowners to help recover the costs of servicing lands with reoccurring mosquito problems. NCMAD also benefited from a review and update to its principal act codified under California Health and Safety Code. This process clarified and strengthened NCMAD’s ability to recover costs from negligent landowners with reoccurring mosquito problems. Measures to advance NCMAD’s mosquito management program included the hiring of a new manager and issuing an in-depth evaluation of its control services as part of its *Integrated Mosquito Management Program (1999)*. The evaluation, which included a review of potential environmental impacts, formalized NCMAD’s mosquito control services into six coordinated activities. These activities include 1) surveillance, 2) physical control, 3) vegetation management, 4) biological control, 5) chemical control, and 6) community education.

In 2003, to enhance service levels, NCMAD asked Napa County landowners to approve an annual parcel assessment to expand its mosquito control services and establish new vector control services relating to yellowjackets, rodents, and ticks.<sup>8</sup> An underlying motivation to establishing the parcel assessment was to help prepare for the anticipated arrival of the West Nile virus in Napa County. The assessment was conducted by mail-in ballot and was approved by over two-thirds of the responding landowners. Specific improvements supported by the special assessment included the construction of a new administration building outfitted with a laboratory and adjoining corporation yard in American Canyon. Proceeds from the special assessment were also used to hire one scientist and three additional certified vector control staff, allowing NCMAD to perform its own laboratory analyses and increase control and surveillance activities. Surveillance and control services for yellowjackets, rodents, and ticks were all implemented by the end of 2004.

**Timeline of Events**

1925	.....NCMAD formed
1926	.....first mosquito survey completed
1930s	.....focus on physical control methods
1960s	.....focus on chemical control methods
1970s	.....focus on biological control methods
1978	.....loss of funding due to Proposition 13
1980s	.....dependent on County subsidies
2003	.....special assessment approved
2004	..yellowjacket, rodent, and tick services est.

<sup>7</sup> Proposition 13 also established a requirement that all new special taxes require two-thirds voter approval.

<sup>8</sup> In the 2015-2016 fiscal year, the annual assessment for a single-family residence was \$19.50. See footnote 24 for more information regarding NCMAD’s annual assessment.



#### 4.0 Adopted Commission Boundaries

NCMAD’s jurisdictional boundary is 791.4 square miles or 506,517 acres in size and includes all unincorporated and incorporated lands within Napa County. There are a total of 49,554 assessor parcels within NCMAD with a combined assessed value of \$35.0 billion.<sup>9</sup> A review of the database maintained by the County Assessor’s Office indicates 43,160 of these assessor parcels have been developed and assigned situs addresses.<sup>10</sup> The jurisdictional boundary is conterminous with NCMAD’s sphere of influence, which was adopted by the Commission in 1984 and updated with no changes in 2005 and 2010. Although eligible to expand into other counties, there have been no changes to NCMAD’s jurisdictional boundary since formation.

Category	Jurisdictional Boundary	Sphere of Influence
Total Acres	506,517	506,517
Total Assessor Parcels	49,554	49,554

#### 5.0 Population and Growth

##### 5.1 Population Trends

NCMAD’s current resident population is estimated at 142,028 based on demographic information published by the California Department of Finance for Napa County. The resident population overall has risen by 8.1% over the last 10 years, equaling a 0.8% annual increase. This increase comparatively ranks sixth in terms of percentage change among all nine Bay Area counties during the period. Close to two-fifths of all resident population growth during the last decade occurred in American Canyon.<sup>11</sup> Nearly all of the remaining three-fifths of resident population growth during the last decade occurred in the City of Napa. The following table summarizes past and current resident population estimates over the last decade.

##### Past and Current Resident Population Estimates

(California Department of Finance)

Category	2006	2008	2010	2012	2014	2016	Change
Population	131,330	133,969	136,316	137,731	138,038	142,028	8.1%

It is reasonable to assume the rate of resident population growth in Napa County will experience a slight reduction over the next 10 years. This expected reduction in the rate of population growth is attributed to a modest slowdown in residential growth in American Canyon and Napa. This assumption is consistent with recent demographic estimates prepared by the Association of Bay Area Governments, which projects Napa County’s annual population will increase by 0.7% annually through 2040 as summarized below.

##### Future Resident Population Projections

(Association of Bay Area Governments, *Projections and Priorities 2013*)

Category	2015	2020	2025	2030	2035	2040	Change
Population	140,300	144,200	148,600	153,100	158,400	163,700	16.7%

<sup>9</sup> Assessed value per assessor parcel in NCMAD totals \$706,300. Assessed value per capita in NCMAD totals \$246,430.

<sup>10</sup> The assessor parcels that have been developed and assigned situs addresses in NCMAD represent 87.1% of the total land acres within the District. Properties owned by State, Federal, City, and County governments do not pay assessments.

<sup>11</sup> Between 2006 and 2016, American Canyon’s resident population increased from 16,280 to 20,374, representing 38% of the total population growth in Napa County.

## 5.2 Growth Trends

Data cataloged by the California Department of Conservation (DC) illustrates NCMAD is experiencing a steady rate of urbanization within its jurisdictional boundary. The most recent report issued by DC identifies exactly one-half of the county comprises agricultural land uses. This amount represents a 1.6% reduction in agricultural uses compared to 10 years earlier. Comparatively, urban land uses have increased over this period by 10.0%. However, these land use patterns have decelerated over the last 10 years for which data is available as reflected in the following table.

### Land Use Trends

(California Department of Conservation)

Year	Agricultural Land			Urban Land		
	Acres	% Change	% of Total	Acres	% Change	% of Total
2002	259,397	(0.12)	51.28	21,394	1.35	4.23
2004	259,237	(0.06)	51.25	22,244	3.97	4.40
2006	256,327	(1.12)	50.67	22,815	2.57	4.51
2008	255,313	(0.39)	50.47	23,328	2.24	4.61
2010	255,236	(0.03)	50.46	23,556	0.98	4.66
2012	255,178	(0.02)	50.44	23,535	(0.09)	4.65

## 6.0 Organizational Structure

### 6.1 Governance

NCMAD was originally organized under the Mosquito Abatement District Act of 1915 (Health and Safety Code Sections 2000 to 2093). The principal act was amended in 2002 and is now referred to as the Mosquito Abatement and Vector Control District Law. The specific intent of the principal act is to facilitate and empower special districts with sufficient authority to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors. The State Controller’s Office reports there are currently 48 mosquito abatement and vector control districts in California.

NCMAD’s governing body is comprised of an appointed six-member board of trustees. One trustee is appointed from the County of Napa and each of the Cities of American Canyon, Calistoga, Napa, St. Helena, and Yountville. Trustees must be registered voters within the appointing authority’s jurisdiction. Terms are two to four years at the appointing authority’s discretion. Trustees are statutorily directed to exercise their independent judgment on behalf of the interests of the residents, landowners, and the public and not solely the interests of the appointing authority.

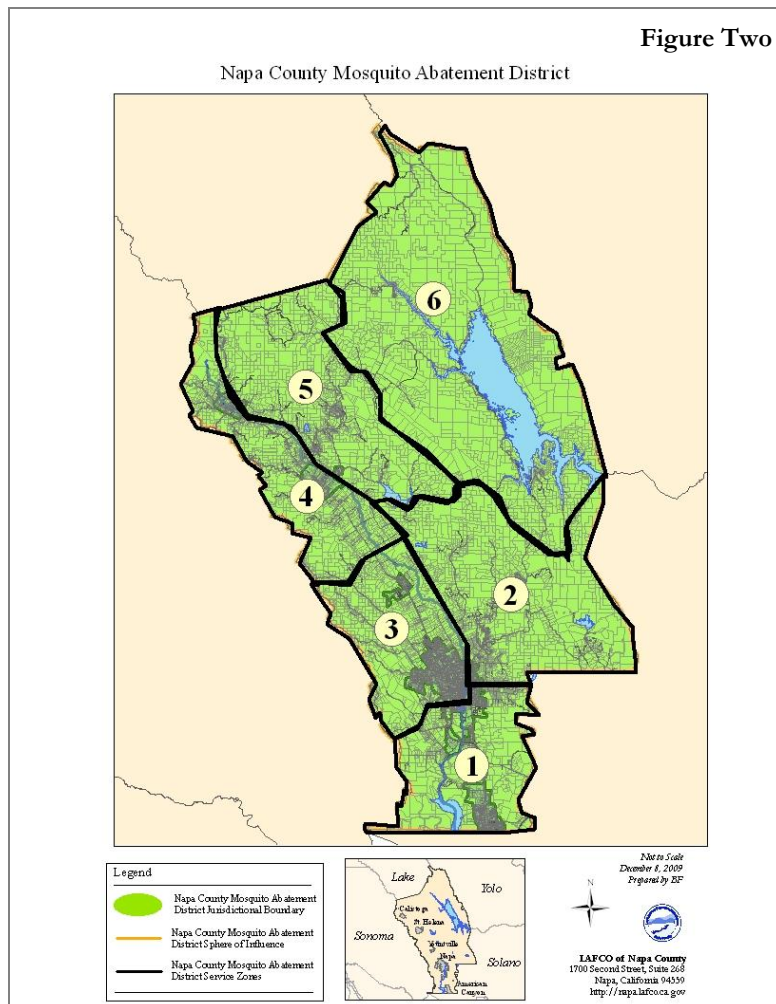
NCMAD meetings are generally conducted on the second Wednesday of each month. Meetings are held at NCMAD’s administrative office located in American Canyon. A review of agency records for the 2015-2016 fiscal year identifies NCMAD held 12 meetings.

Specific powers authorized under NCMAD's principal act include:

- Conduct surveillance programs and other appropriate studies of vectors and vector-borne diseases (Health and Safety Code Section 2040(a))
- Take any and all necessary or proper actions to prevent the occurrence of vectors and vector-borne diseases (Health and Safety Code Section 2040(b))
- Take any and all necessary or proper actions to abate or control vectors and vector-borne diseases (Health and Safety Code Section 2040(c))
- Take any and all actions necessary for, or incidental to, the powers granted above (Health and Safety Code Section 2040(d))

## 6.2 Staffing

NCMAD's Board of Trustees appoints an at-will general manager to administer the daily activities of the agency. The general manager currently oversees a staff of seven full-time at-will employees. This includes an administrative assistant, entomologist, and five field technicians. Each field technician is responsible for servicing a specific geographic zone, with one technician serving two zones (Zone Five and Zone Six), as depicted below.



## 7.0 Municipal Services

NCMAD’s municipal services are provided directly through a range of surveillance, education, and control measures. Services are categorized into four distinct programs involving 1) mosquitoes, 2) yellowjackets, 3) rodents, and 4) tick surveillance.

### 7.1 Overall Service Demands

NCMAD performs regular field activities relating to all four programs within each of its six service zones. NCMAD also responds to service calls as needed. A review of service calls over the last 12 fiscal years reflects a decline in constituent demands with total calls decreasing from 1,622 to 1,433, or 12%. The decline is largely attributed to a readjustment from the initial public awareness and concern regarding the West Nile virus, which contributed to a peak call demand in 2005-2006. However, service calls have increased over the last four years as a result of extensive media coverage associated with a Chikungunya outbreak, invasive *Aedes aegypti* and *Aedes albopictus* mosquitoes found in four California counties, and the Zika virus.<sup>12</sup> It is expected that the number of annual service calls will return to levels that were experienced between fiscal years 2009-2010 and 2015-2016, which is similar to what occurred following the extensive media coverage of West Nile virus in fiscal year 2005-2006.

#### Service Calls by Program

Fiscal Year	Mosquitoes	Yellowjackets	Rodents	Ticks	Other	Total
2004-2005	1,252	311	39	1	19	1,622
2005-2006	1,873*	153	27	0	13	2,066
2006-2007	857	147	29	0	12	1,045
2007-2008	988	258	16	0	16	1,278
2008-2009	978	145	6	0	10	1,139
2009-2010	966	145	9	1	17	1,138
2010-2011	1,130	126	20	0	21	1,297
2011-2012	828	181	21	0	13	1,043
2012-2013	904	304	23	2	18	1,251
2013-2014	964	202	16	1	29	1,212
2014-2015	984	185	22	0	16	1,207
2015-2016	1,305**	96	11	0	21	1,433
<b>Average</b>	<b>1,085.8</b>	<b>187.8</b>	<b>19.9</b>	<b>0.4</b>	<b>17.1</b>	<b>1,310.9</b>

\* Extensive media coverage of West Nile virus in California resulted in a higher number of mosquito services calls in 2005-2006 than would be expected during a typical fiscal year.

\*\* Extensive media coverage of the Zika virus in Brazil, the Carribean, and Florida resulted in a higher number of mosquito services calls in 2015-2016 than would be expected during a typical fiscal year.

<sup>12</sup> Invasive Aedes mosquitoes were found in Southern California, Fresno County, Madera County, and San Mateo County between 2012 and 2014.

Zone Four encompasses most of the Napa Valley north of Rutherford and generates the most service calls on average at approximately 380 annually, which is over 10% more than any other zone. Service calls have declined over the last 12 fiscal years in four of the six zones. Service calls within Zone Six represent the largest percentage increase by nearly quadrupling over the last 12 fiscal years and are largely attributed to an increased awareness and demand within Circle Oaks and Capell Valley Mobile Home Park communities. Additionally, service calls within Zone Five have more than doubled over the last 12 fiscal years and are similarly attributed to an increased awareness and demand within the Angwin and Pope Valley communities. The following table summarizes service calls within each zone over the last 12 fiscal years.

**Service Calls by Zone**

<b>Fiscal Year</b>	<b>One</b>	<b>Two</b>	<b>Three</b>	<b>Four</b>	<b>Five</b>	<b>Six</b>	<b>Total</b>
<b>2004-2005</b>	104	593	300	438	134	53	<b>1,622</b>
<b>2005-2006</b>	70	482	309	830	216	159	<b>2,066</b>
<b>2006-2007</b>	40	267	170	438	63	67	<b>1,045</b>
<b>2007-2008</b>	28	365	215	426	128	116	<b>1,278</b>
<b>2008-2009</b>	76	287	194	329	127	126	<b>1,139</b>
<b>2009-2010</b>	25	285	231	284	257	56	<b>1,138</b>
<b>2010-2011</b>	15	264	198	460	229	131	<b>1,297</b>
<b>2011-2012</b>	21	260	280	136	238	108	<b>1,043</b>
<b>2012-2013</b>	41	341	271	340	135	123	<b>1,251</b>
<b>2013-2014</b>	44	385	283	182	261	57	<b>1,212</b>
<b>2014-2015</b>	33	272	209	324	263	106	<b>1,207</b>
<b>2015-2016</b>	20	272	283	364	299	195	<b>1,433</b>
<b>Average</b>	<b>43.1</b>	<b>339.4</b>	<b>245.2</b>	<b>379.3</b>	<b>195.8</b>	<b>99.8</b>	<b>1,310.9</b>

An expanded review of all four NCMAD service programs in terms of organization, capacities, and demands follows.

**7.2 Mosquito Services**

NCMAD’s mosquito services were established in 1925 and account for its largest allocation of resources. The underlying objective of these services is to minimize the emergence of adult mosquitoes. Current services are guided by a 2015 Programmatic EIR policy document outlining six integrated programs aimed at controlling mosquitoes and their vector-borne diseases while minimizing environmental impacts. These six integrated programs are systematically tiered and include surveillance, community education, physical control, vegetation management, biological control, and chemical control. A brief summary of these six programs follows.

***Surveillance***

Surveillance serves as NCMAD’s initial and continual measure to monitor and control mosquitoes and their vector-borne diseases. Surveillance is facilitated through trapping systems, field investigations, and direct visual inspection. The information generated from surveillance helps NCMAD evaluate the type and number of mosquitoes within a targeted area as well as identifying the presence of vector-borne diseases. Surveillance is also used to help measure the effectiveness of any given vector control activity undertaken by

NCMAD. These surveillance activities are coordinated with the California Department of Public Health, University of California at Davis Arbovirus Research Laboratory, and Napa County Health and Human Services.

### ***Community Education***

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NCMAD pursues a variety of outreach efforts to raise public awareness regarding methods to prevent and reduce local mosquito populations along with their disease potential. This includes posting educational information on NCMAD's website, distributing brochures, publishing notices in local newspapers, and making presentations to schools, home associations, and service clubs. NCMAD also utilizes local newspapers and radio stations to communicate regular service announcements between March and October.

### ***Physical Control***

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Physical control serves as NCMAD's primary means to manage mosquito habitat by modifying land to remove natural and man-made breeding grounds. This includes building dikes and levees along with ditching and plowing cracked ground. These actions help to eliminate stagnant water sources by improving water circulation and drainage of low-lying areas and local waterways. The Department of Health Services is responsible for reviewing all proposed work plans by NCMAD prior to implementation to ensure conformance with environmental regulations.<sup>13</sup>

### ***Vegetation Management***

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NCMAD occasionally supplements its physical control activities with a vegetation management program to improve surveillance and reduce mosquito populations. This program involves vegetation removal and/or trimming or pruning to improve water circulation and access to vector breeding sites.

### ***Biological Control***

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Biological control is used by NCMAD as a long-term strategy to manage mosquito larvae and prevent adult emergence. The primary biological control method involves stocking ornamental ponds, watering troughs, and other long-term stagnant water sources with mosquitofish. Mosquitofish provide long-term control of larvae to permanent water bodies based on their reproductive capabilities. Another commonly used biological control agent involves the application of *Bacillus sphaericus*, which is an aquatic bacterium used to terminate mosquito larvae.

### ***Chemical Control***

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Chemical control is a short-term strategy used by NCMAD to manage both larvae and adult mosquitoes by applying pesticides either by hand, machine, or aircraft. The most common chemical controls used by NCMAD include three larvicides known as BVA-2, Bti, and Methoprene. These pesticides are applied using various forms of distribution and are effective against all mosquito species. Pyrethrins, synthetic pyrethroids, and etofenprox are the adulticides currently used by NCMAD. These pesticides are primarily used to control the Western Treehole Mosquito and are distributed using truck mounted, ATV

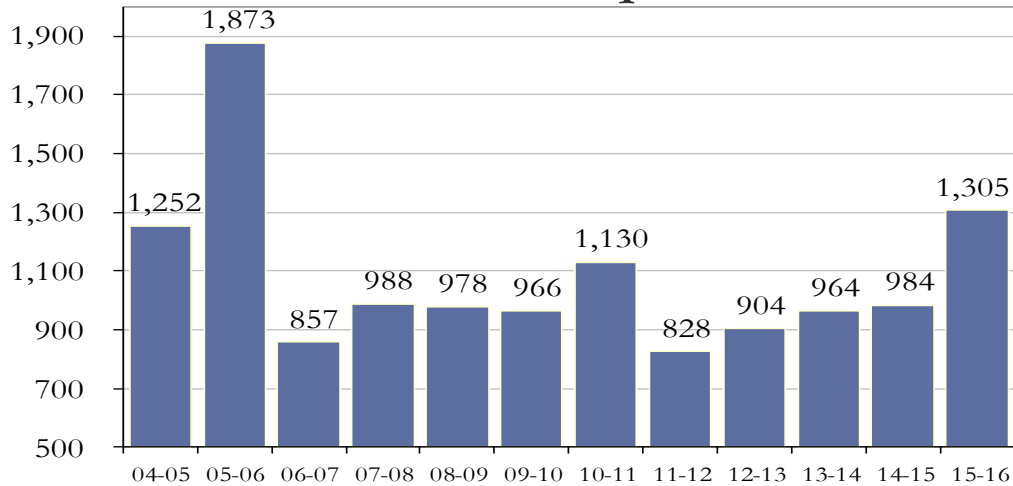
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<sup>13</sup> NCMAD work plans are also reviewed for environmental conformance by the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Army Corps of Engineers, State Water Quality Control Board, San Francisco Regional Water Quality Control Board, Central Valley Regional Water Quality Control Board, San Francisco Bay Conservation and Development Commission, National Marine Fisheries Service, and several local environmental organizations.

mounted, and hand held ultra-low volume mist machines during the early morning hours when winds are minimal. Pesticides are not used unless NCMAD determines other control measures would be ineffective in mitigating the mosquito population. Primary deterrents associated with the use of pesticides include cost, low residual effects, and environmental considerations. Appendix A summarizes pesticide uses by NCMAD over the last 12 fiscal years in terms of number of applications and quantities.

NCMAD has experienced a 4% increase in service calls for mosquitoes over the last 12 fiscal years. Peak service call demands for mosquitoes during this period occurred in 2005-2006 and totaled 1,873. This amount is approximately 43% higher than the number of calls received in 2015-2016 and attributed to greater public awareness aided by NCMAD’s special assessment and media coverage involving the West Nile virus.<sup>14</sup> It is important to note the significant increase in service calls between 2014-2015 and 2015-2016 was the result of heightened awareness and concern due to extensive media coverage of Zika virus. With the exception of years with anomalous media activity (West Nile virus in 2005-2006, an unusually wet year in 2010-2011, and Zika virus in 2015-2016), service calls for mosquitoes have essentially been stable and below the 12-year average of 1,086 annual service calls. Service calls relating to mosquitoes currently represent 91% of total calls received.

### Service Calls for Mosquitoes

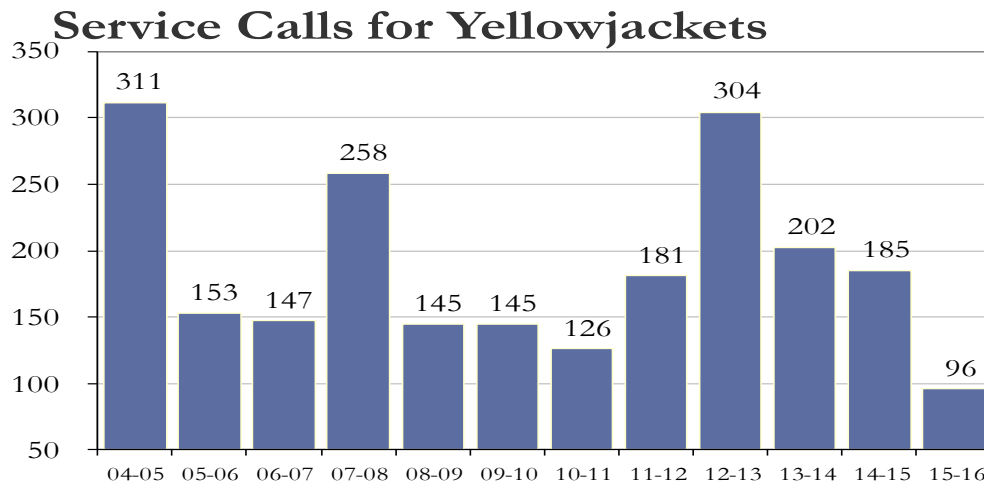


<sup>14</sup> Since testing began in 2002, there have been three positive human test results for West Nile virus in Napa County. The positive test results occurred independently in 2006, 2007, and 2013; no deaths occurred. Overall, there have been 6,014 positive human test results for West Nile virus in California, which have resulted in a mortality rate of 4.1% (247 deaths).

### 7.3 Yellowjacket Services

NCMAD’s yellowjacket services were established in 2003 and represent its second largest allocation of resources. It consists of two coordinated activities aimed at containing and managing yellowjackets in Napa County: community education and chemical control. Community education is facilitated through preparation and distribution of informational literature, public speaking events, and responding to constituent inquiries. As needed, NCMAD provides chemical control of yellowjackets by applying pesticides, usually Pyrethrin dust, to known nest sites.<sup>15</sup> Appendix A summarizes pesticide uses by NCMAD over the last 12 fiscal years in terms of number of applications and quantities.

NCMAD has experienced a two-thirds decline in service calls for yellowjackets over the last 12 fiscal years. Peak service call demands for yellowjackets during this period occurred in 2004-2005 and totaled 311, which is more than three times the number of service calls received in 2015-2016. The decline in service demands from the peak total is generally attributed to improved control measures and public education implemented by NCMAD. Service calls relating to yellowjackets currently represent 7% of total calls received.



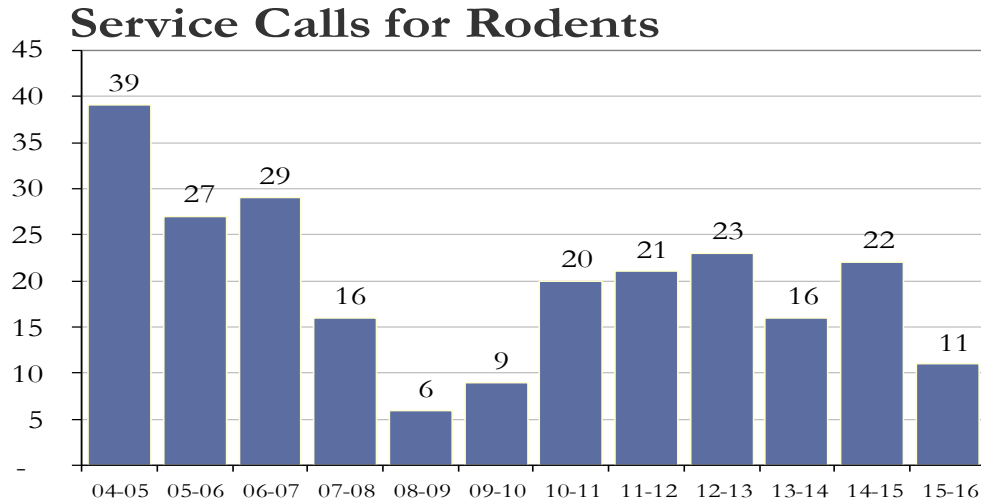
### 7.4 Rodent Services

NCMAD’s rodent services were established in 2003 and account for its third largest allocation of resources. It consists of two coordinated activities: community education and field trappings. Community education is facilitated through preparation and distribution of informational literature, public speaking events, and responding to constituent inquiries. Field trappings are achieved through bait stations and is part of disease surveillance. Rodents are occasionally tested as part of a regional rodent-borne disease surveillance program, which is coordinated by the California Department of Public Health. This includes testing for Hantavirus and Arenavirus.

<sup>15</sup> NCMAD reports the following yellowjackets are commonly found in Napa County: Aerial; Bald-Faced Hornet; Black Jacket; California; Common; Forest; German; Prairie; and Western.



NCMAD has experienced over a two-thirds decline in service calls for rodents over the last 12 fiscal years. Peak service call demands for rodents occurred in 2004-2005 totaling 39. This amount is nearly four times the number of service calls received in 2015-2016. Service calls relating to rodents currently represent less than 1% of total calls received.



### ***7.5 Tick Surveillance and Disease Testing Services***

NCMAD’s tick surveillance and disease testing services were established in 2003 and account for its smallest allocation of resources. It consists of two coordinated activities relating to ticks and their disease potential in Napa County: surveillance and community education. Surveillance is achieved through trapping systems and field investigations. Ticks collected by NCMAD are tested for Rocky Mountain Spotted Fever, Tularemia, and Lyme Disease. These efforts are complemented by NCMAD’s community education activities. These include answering constituent inquiries, public speaking events, informational brochures, and posting information on NCMAD’s website. Due to the nature of the program, service calls for tick surveillance and disease testing have been minimal. Only five service calls have been recorded since the program was established.

## **8.0 Financial**

### ***8.1 Assets, Liabilities, and Equity***

NCMAD contracts with a private accounting firm to prepare an annual report following the end of each fiscal year summarizing the agency’s overall financial standing. The most recent report was prepared for the 2015-2016 fiscal year and includes audited financial statements identifying NCMAD’s assets, liabilities, and equity as of June 30, 2016. The most recent report states NCMAD’s financial position continues to be adequate. Financial planning is based on specific assumptions from recent trends in real property values, new residential development, State of California economic forecasts, and historical growth patterns in the communities served by NCMAD. These audited financial statements provide quantitative measurements in assessing NCMAD’s short and long-term fiscal health and are summarized as follows.

***Assets***

NCMAD’s assets at the end of the fiscal year totaled \$5.13 million. Assets classified as current, with the expectation they could be liquidated into currency within a year, represented nearly two-thirds of the total amount with the majority tied to cash investments.<sup>16</sup> Assets classified as non-current represented the remaining amount with the largest portion associated with NCMAD’s administrative and workshop buildings at 15 Melvin Road in American Canyon.<sup>17</sup>

Category	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Current Assets	3.119	3.615	3.541	3.538	3.343
Non-Current Assets	2.245	2.247	2.089	1.946	1.789
Total Assets	\$5.364	\$5.862	\$5.630	\$5.484	\$5.132

*Amounts in millions*

***Liabilities***

NCMAD’s liabilities at the end of the fiscal year totaled \$0.70 million. Current liabilities representing obligations owed within a year accounted for approximately 4% of the total amount and tied to accrued payroll.<sup>18</sup> Non-current liabilities accounted for the majority of the total amount and were tied to net pension liability and compensated absences.<sup>19</sup>

Category	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Current Liabilities	0.055	0.050	0.015	0.038	0.029
Non-Current Liabilities	0.039	0.029	0.028	0.989	0.673
Total Liabilities	\$0.094	\$0.079	\$0.043	\$1.027	\$0.702

*Amounts in millions*

***Equity***

NCMAD’s equity at the end of the fiscal year totaled \$5.20 million. This amount represents the difference between NCMAD’s total assets and total liabilities and includes \$3.41 million in unrestricted funds that can be used for any purpose. NCMAD relies on its unrestricted funds to cover operating expenses through the first two quarters of the fiscal year when it receives its first installment of property tax proceeds in December. A portion of these funds is also held for unexpected emergencies (e.g. flooding, broken dikes, and introduction of exotic vectors and diseases).

Category	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Invested in Capital Assets	2.245	2.247	2.089	1.946	1.789
Unrestricted Funds	3.025	3.536	3.498	3.269	3.408
Total Equity	\$5.270	\$5.783	\$5.587	\$5.215	\$5.197

*Amounts in millions*

<sup>16</sup> Current assets totaled \$3.343 million and include cash investments (\$3.090 million), accounts receivable (\$0.071 million), and inventory supplies (\$0.182 million).

<sup>17</sup> Non-current assets totaled \$1.789 million and include buildings (\$2.509 million), vehicles (\$0.364 million), and equipment (\$0.391 million) minus accumulated depreciation (\$1.617 million) plus land (\$0.142 million).

<sup>18</sup> Current liabilities totaled \$0.029 million and are entirely associated with accrued payroll.

<sup>19</sup> Non-current liabilities totaled \$0.673 million and include net pension liability (\$0.644 million) and compensated absences (\$0.029 million).

NCMAD’s financial statements for 2015-2016 reflect the District experienced a slightly negative change in its fiscal standing over the last five completed fiscal years as its overall equity, or fund balance, decreased by 1% from \$5.27 to \$5.20 million. NCMAD has been able to increase its unrestricted portion of its fund balance by 13% over the last five completed fiscal years from \$3.02 to \$3.41 million.

**2015-2016 Financial Statements**

Assets	\$5.132 million
Liabilities	\$0.702 million
Equity	\$5.197 million

Calculations performed assessing NCMAD’s liquidity, capital, and solvency indicate the District is in good financial health. Liquidity remains good as NCMAD finished the fiscal year with current assets 115 times greater than its current liabilities along with 447 days cash sufficient to cover operating expenses.<sup>20</sup> NCMAD also finished with minimal debt relative to its equity. This indicates a strong capital structure as measured by NCMAD having less than one one-hundredth of long-term debt relative to its net assets.<sup>21</sup>

**8.2 Revenue and Expense Trends**

A review of NCMAD’s actual revenues and expenses identifies the District has generally maintained positive cash flow over the last 13 completed fiscal years, which extends to include the first year in which the special assessment was levied. Underlying the positive cash flow is the 34% or \$0.357 million increase in ad valorem property tax proceeds. The cash flow margin, however, is trending negatively given actual total revenues as measured by percentage change are being surpassed by actual total expenses. This trend will be changing moving forward as the District’s other post employment benefit (OPEB) and pension funded status is near 90%. The following table summarizes total actual revenues and expenses between 2003-2004 and 2015-2016.

<b>Fiscal Year</b>	<b>Actual Revenues</b>	<b>Actual Expenses</b>	<b>Difference</b>
2003-2004	\$1,821,575	\$1,481,065	\$340,510
2004-2005	\$2,442,931	\$2,037,668	\$405,263
2005-2006	\$1,867,282	\$1,324,796	\$542,486
2006-2007	\$1,829,771	\$1,154,967	\$674,804
2007-2008	\$1,962,682	\$2,757,343	(\$794,661)
2008-2009	\$1,988,958	\$1,793,485	\$195,473
2009-2010	\$1,961,274	\$1,556,532	\$404,742
2010-2011	\$1,932,587	\$1,909,573	\$23,014
2011-2012	\$2,011,090	\$2,360,222	(\$349,132)
2012-2013	\$2,180,100	\$1,754,199	\$425,901
2013-2014	\$2,116,838	\$2,256,898	(\$140,060)
2014-2015	\$2,184,196	\$2,307,771	(\$123,575)
2015-2016	\$2,319,674	\$2,612,420	(\$292,746)
<b>TOTAL</b>	<b>\$26,618,958</b>	<b>\$25,306,939</b>	<b>\$1,312,019</b>
Change (%)	27.3	76.4	---

<sup>20</sup> NCMAD’s current ratio was 115.3:1.

<sup>21</sup> NCMAD’s debt-to-net-assets ratio was 0.6%.

NCMAD’s bottom line over the last 13 completed fiscal years was positive as revenues exceeded expenses by 5%. This increase in the fund balance reflects NCMAD’s surplus in revenues over expenses during the 13 fiscal years, which totaled \$1.31 million.<sup>22</sup>

NCMAD’s revenues and expenses between 2003-2004 and 2005-2006 reflect funds received and expended from the Napa River Flood Protection Project (“Measure A”) to relocate the District from Napa to American Canyon. Additionally, NCMAD’s expenses exceeded revenues received in 2007-2008, 2011-2012, 2013-2014, 2014-2015, and 2015-2016 due to the District utilizing positive revenue balances from prior fiscal years for capital projects and to reduce debt.

NCMAD utilized the positive difference in annual revenues to convert its facility to 80% solar power and install LED lighting (2011-2012 and 2014-2015), install a paved entry way (2011-2012), eliminate GASB 45 OPEB debt totaling \$2.8 million (2007-2008 to present), and reduce CalPERS pension debt to achieve 90% funded status (2011-2012 to present). Barring poor investment returns and/or reductions in the current discount rates of 5.5% (OPEB) and 7.5% (CalPERS), NCMAD's annual contributions will be significantly lower moving forward. NCMAD's focus as of 2016-2017 is to manage OPEB and CalPERS debt and expenses so that their funded status remains at or greater than 90%. It is anticipated that future positive differences in annual revenues will be used to capitalize a wetlands management fund (allowing NCMAD to participate in wetlands enhancement and restoration projects to better manage future pesticide use and expenses), replace ageing equipment, and adequately fund the capital projects fund (to address, as public demands for services require, future growth in infrastructure and programs).

**8.3 Annual Budget**

NCMAD’s adopted budget for the 2016-2017 fiscal year totals \$2.22 million. This amount represents NCMAD’s total approved expenses or appropriations for the fiscal year within its two governmental fund accounts and reflects a 15% decrease from the prior year budget.<sup>23</sup>

<b>2016-2017 Adopted Budget</b>	
Total Expenses:	\$2.217 million
Total Revenues:	\$2.186 million
Difference:	(\$0.031 million)

NCMAD estimates conservatively total revenues for the fiscal year will fall short of expenses by \$0.03 million and total \$2.19 million. Revenues overall are expected to slightly decrease by 6% from the prior year primarily due to conservative property tax value calculations. An expanded review of adopted expenses and revenues for the fiscal year follows.

**General Operations Fund**

NCMAD’s General Operations Fund supports basic mosquito abatement services. Approved expenses are estimated at \$1.19 million with apportionments dedicated to salaries and benefits (57%), services and supplies (32%), equipment (5%), and contingencies (5%). Estimated revenues are projected at \$1.16 million with proceeds expected to be supported through property taxes (96%), service charges (3%), and investments (1%). No end of year shortfall is expected based on NCMAD’s practice to adjust costs during the fiscal year to correspond with available revenues.

<sup>22</sup> NCMAD’s total margin over the last 13 completed fiscal years was 4.9%.

<sup>23</sup> NCMAD’s governmental fund accounts are divided between general operations and a special assessment.

***Special Assessment Fund***

NCMAD’s Special Assessment Fund accounts for the receipt and expense of monies earmarked to provide an elevated level of mosquito abatement services along with yellowjacket control, as well as rodent and tick surveillance and disease testing. Approved expenses are estimated at \$1.03 million and apportioned between salaries and benefits (62%), services and supplies (27%), contingencies (6%), and equipment (5%). Estimated revenues are projected at \$1.03 million with proceeds expected to be drawn from the special assessment (98%), service charges (1%), and investments (1%).<sup>24</sup> No end of year shortfall is expected based on NCMAD’s practice to adjust costs during the fiscal year to correspond with available revenues.

**9.0 Regional Comparisons**

NCMAD is surrounded by four adjacent mosquito abatement districts serving Lake, Solano, Sonoma, and Yolo counties. A brief review of these adjacent districts indicates NCMAD’s resources generally lie within the regional average range based on staffing, revenues, and expenses relative to population and area served. These indicators are summarized below and suggest NCMAD’s service levels are comparable to regional standards with respect to providing vector control services.

<b>District</b>	<b>Staffing Per 1,000 Residents</b>	<b>Staffing Per 1,000 Acres</b>	<b>Revenues Per Capita</b>	<b>Expenses Per Capita</b>
Lake County VCD	0.140	0.011	\$25.99	\$39.91
Marin-Sonoma MVCD	0.045	0.025	\$11.05	\$11.03
Napa County MAD	0.056	0.016	\$15.39	\$15.61
Sacramento-Yolo MAD	0.010	0.014	\$7.18	\$7.98
Solano County MAD	0.021	0.017	\$5.20	\$4.73
<b><i>Average</i></b>	<b><i>0.054</i></b>	<b><i>0.017</i></b>	<b><i>\$12.96</i></b>	<b><i>\$15.85</i></b>

<sup>24</sup> The current annual special assessment is \$19.50 per calculated single-family equivalent (SFE) unit and is levied against all parcels in Napa County. All single-family residential units are assigned at 1.0 SFE, while condominiums, multi-family residential units, and mobile homes are factored at 0.74, 0.34, and 0.20 SFE, respectively. The majority of commercial and industrial properties are assigned a factor of 0.50 SFE. Wineries are assigned at 0.25 SFE and agricultural and open space uses are assigned at 0.002 SFE. The special assessment is reviewed annually and NCMAD is authorized to increase the levy by up to 3.0% based on the San Francisco Bay Area Consumer Price Index.

## **IV. ENVIRONMENTAL REVIEW**

### **A. Municipal Service Review**

The municipal service review on NCMAD is a project under the California Environmental Quality Act (CEQA) given it may reasonably result in a future indirect physical change to the environment. The municipal service review is categorically exempt from further environmental review under Code of Regulations Section 15306. This exemption applies to basic data collection, research, and resource evaluation activities, which do not result in any serious or major disturbance to any environmental resource. This exemption applies to the municipal service review on NCMAD given it is strictly for information gathering purposes that may lead to an action which LAFCO has not approved, adopted, or funded.

### **B. Sphere of Influence Update**

The sphere update on NCMAD is a project under CEQA given it may reasonably result in a future indirect physical change to the environment. The sphere update is exempt from further environmental review under Code of Regulations Section 15061(b)(3). This exemption is referred to as the “general rule” and applies to projects in which it can be seen with certainty there is no possibility the action may have a significant effect on the environment. This exemption applies to the sphere update on NCMAD given it can be seen with certainty the confirmation of the existing sphere will not result in any physical changes to the environment.

## V. SOURCES

### Agency Contacts

- Wesley Maffei, NCMAD Manager

### Documents

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## Websites

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- Mosquito and Vector Control Association of California, <http://www.mvcac.org/>
- Association of Bay Area Governments, <http://www.abag.org/>
- California Department of Conservation, <http://www.conservation.ca.gov/>
- California Department of Finance, <http://www.dof.ca.gov/>
- California Department of Public Health, <http://www.cdph.ca.gov/>
- California Special Districts Association, <http://www.csda.net/special-districts/>
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	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
<b>Total Number of Applications</b>												
Golden Bear 1111	593	531	415	420	354	293	147	44	0	0	0	0
BVA-2	0	0	0	0	0	20	39	102	147	163	189	225
Methoprene Liquid	608	454	376	342	247	355	282	136	81	143	157	173
Methoprene Pellets	38	139	183	190	314	277	351	145	269	373	339	458
Methoprene Briquettes	96	152	157	225	280	194	147	91	71	99	205	157
Bti Liquid	569	389	333	318	239	384	281	133	81	145	151	169
Bti Granules	17	12	4	3	0	1	31	2	1	34	56	114
Vectomax WSP	0	0	0	0	0	0	28	178	214	213	162	100
Permethrin	0	0	0	0	0	17	4	3	34	5	28	0
Pyrethrin	219	265	130	184	135	155	192	176	101	211	157	23
Etofenprox	0	0	0	0	0	0	0	0	0	0	54	225
Bacillus sphaericus Granules (Bs)	0	6	9	36	124	47	60	42	23	31	22	79
Drione	213	109	113	202	145	131	93	178	280	181	172	93
Allethrin	29	22	13	17	6	5	8	3	17	8	4	5
Temephos	1	0	12	4	78	148	176	220	104	41	4	1
Onslaught	0	0	0	0	0	0	12	0	0	0	0	1
<b>Total Amounts (Active Ingredient)</b>												
Golden Bear 1111 (gallons)	1367.06	948.07	503.85	299.25	274.71	473.18	123.5	34.37	0	0	0	0
BVA-2 (gallons)	0	0	0	0	0	15.96	21.33	146.37	212.58	256.68	289.43	200.45
Methoprene Liquid (gallons)	69.81	139.28	66.13	62.78	47.81	73.53	33.62	1.48	0.88	1.07	2.13	1.14
Methoprene pellets (ounces)	71.12	279.87	225.32	181.47	1056.7	792.84	437.7	781.01	2882.34	2832	4115.04	2,160
Methoprene Briquettes (ounces)	9.14	16.66	14.29	66.44	52.35	43.33	67.73	115.38	41.7	18.47	60.96	40.4
Bti Liquid (gallons)	267.22	296.53	258.26	254.09	199.86	350.97	139.26	1.91	1.19	5.31	9.89	5.37
Bti granules (pounds)	6.49	9.15	0.8	11.28	0	0.82	13.06	40.67	4.16	168.46	22.84	83.51
Vectomax WSP (Bti + Bs) (grams)	0	0	0	0	0	0	11,790	46,460	32,100	19,880	17,530	6,628
Permethrin (gallons)	0	0	0	0	5.58	52.71	3.08	0.14	20.32	0.85	4.02	0
Pyrethrin (gallons)	102.9	101.68	51.54	82	99.05	76.15	34.93	3.98	3.18	30.27	14.85	0.47
Etofenprox (gallons)	0	0	0	0	0	0	0	0	0	0	0.61	3.09
Bacillus sphaericus granules (Bs) (ounces)	0	112	83	369.44	1572.12	331.48	4,986.57	1,170.94	98.8	88.48	158.16	299.04
Drione (pyrethrin dust) (ounces)	722	306.1	377.4	553.76	428.73	334.88	269.44	37.95	36.34	318.4	261.92	121.76
Allethrin (ounces)	305.5	359	137	329.5	148	39	75.5	34	45.07	0.23	0.1	0.08
Temephos granules (pounds)	0.03	0	2.11	1.05	5.83	15.61	9.73	45.15	34.48	21.29	0.38	1.1
Onslaught (oz)	0	0	0	0	0	0	2.63	0	0	0	0	0.1

California Government Code Section 56430

- (a) In order to prepare and to update spheres of influence in accordance with Section 56425, the commission shall conduct a service review of the municipal services provided in the county or other appropriate area designated by the commission. The commission shall include in the area designated for service review the county, the region, the subregion, or any other geographic area as is appropriate for an analysis of the service or services to be reviewed, and shall prepare a written statement of its determinations with respect to each of the following:
- (1) Growth and population projections for the affected area.
  - (2) The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.
  - (3) Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.
  - (4) Financial ability of agencies to provide services.
  - (5) Status of, and opportunities for, shared facilities.
  - (6) Accountability for community service needs, including governmental structure and operational efficiencies.
  - (7) Any other matter related to effective or efficient service delivery, as required by commission policy.
- (b) In conducting a service review, the commission shall comprehensively review all of the agencies that provide the identified service or services within the designated geographic area. The commission may assess various alternatives for improving efficiency and affordability of infrastructure and service delivery within and contiguous to the sphere of influence, including, but not limited to, the consolidation of governmental agencies.
- (c) In conducting a service review, the commission may include a review of whether the agencies under review, including any public water system as defined in Section 116275, are in compliance with the California Safe Drinking Water Act (Chapter 4 (commencing with Section 116270) of Part 12 of Division 104 of the Health and Safety Code). A public water system may satisfy any request for information as to compliance with that act by submission of the consumer confidence of water quality report prepared by the public water system as provided by Section 116470 of the Health and Safety Code.
- (d) The commission may request information, as part of a service review under this section, from identified public or private entities that provide wholesale or retail supply of drinking water, including mutual water companies formed pursuant to Part 7 (commencing with Section 14300) of Division 3 of Title 1 of the Corporations Code, and private utilities, as defined in Section 1502 of the Public Utilities Code.
- (e) The commission shall conduct a service review before, or in conjunction with, but no later than the time it is considering an action to establish a sphere of influence in accordance with Section 56425 or 56426.5 or to update a sphere of influence pursuant to Section 56425.



## LOCAL AGENCY FORMATION COMMISSION OF NAPA COUNTY

### *Policy on Municipal Service Reviews*

(Adopted: November 3, 2008; Last Amended: October 5, 2015)

#### **I. Background**

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires the Commission to prepare municipal service reviews in conjunction with its mandate to review and update each local agency's sphere of influence every five years as necessary. The legislative intent of the municipal service review process is to inform the Commission with regard to the availability, capacity, and efficiency of governmental services provided within its jurisdiction prior to making sphere of influence determinations. Municipal service reviews must designate the geographic area in which the governmental service or services are under evaluation. Municipal service reviews must also include determinations addressing the governance factors prescribed under Government Code Section 56430 and any other matters relating to service provision as required by Commission policy.

#### **II. Purpose**

The purpose of these policies is to guide the Commission in conducting municipal service reviews. This includes establishing consistency with respect to the Commission's approach in the (a) scheduling, (b) preparation, and (c) adoption of municipal service reviews.

#### **III. Objective**

The objective of the Commission in conducting municipal service reviews is to proactively and comprehensively evaluate the level, range, and structure of governmental services necessary to support orderly growth and development in Napa County. Underlying this objective is to develop and expand the Commission's knowledge and understanding of the current and planned provision of local governmental services in relationship to the present and future needs of the community. The Commission will use the municipal service reviews not only to inform subsequent sphere of influence determinations but also to identify opportunities for greater coordination and cooperation between providers as well as possible government structure changes.

#### **IV. Municipal Service Review Policies**

##### **A. Scheduling**

Each year, the Commission will adopt a Work Program, which shall include a schedule for initiating and completing municipal service reviews, consistent with the Commission's obligation to update each sphere of influence, as necessary.

The Commission will generally schedule municipal service reviews in conjunction with sphere of influence updates. The Commission, however, may schedule municipal service reviews independent of sphere of influence updates. The Commission may also amend the Work Program to add, modify, or eliminate scheduled municipal service reviews to address changes in circumstances, priorities, and available resources.

In adopting a Work Program, the Commission may calendar three types of municipal service reviews. These three types of municipal service reviews are 1) service-specific, 2) region-specific, and 3) agency-specific and are summarized below.

- A service-specific municipal service review will examine particular governmental services across multiple local agencies on a countywide basis.
- A region-specific municipal service review will examine the range of governmental services provided by local agencies within a particular area.
- An agency-specific municipal service review will examine the breadth of governmental services provided by a particular local agency.

## **B. Preparation**

The Commission will encourage input among affected local agencies in designing the municipal service reviews to enhance the value of the process among stakeholders and capture unique local conditions and circumstances effecting service provision. This includes identifying appropriate performance measures as well as regional growth and service issues transcending political boundaries. The Commission will also seek input from the affected local agencies in determining final geographic area boundaries for the municipal service reviews. Factors the Commission may consider in determining final geographic area boundaries include, but are not limited to, spheres of influence, jurisdictional boundaries, urban growth boundaries, general plan designations, and topography.

The Commission will prepare the municipal service reviews but may contract with outside consultants to assist staff as needed. Data collection is an integral component of the municipal service review process and requires cooperation from local agencies. The Commission will strive to reduce the demands on local agencies in the data collection process to the extent possible. All service related information provided by local agencies will be reviewed and verified by the Commission.

Each municipal service review will generally be prepared in three distinct phases. The first phase will involve the distribution of an initial checklist and request for service information to be provided by the local agency and analyzed by Commission staff. This information will be compiled in an administrative draft report, which will be made available to staff from each affected local agency for its review and comment to identify any technical corrections. The draft report, including any technical corrections identified by staff from the affected local agencies, will be provided to the Commission and will be made available to the public for review and comment for a period of no less than 21 days. Finally, a final report addressing any new information or comments generated during the public review period, as appropriate, will be presented to the Commission for its consideration at a public hearing.

In addition to making determinations on various factors as prescribed by Government Code Section 56430, the Commission will additionally make determinations with respect to the relationship with regional growth goals and policies.

**C. Adoption**

The Commission will complete each scheduled municipal service review by formally receiving a final report and adopting a resolution codifying its determinations as part of public hearing.