

# **Napa County Winegrape Pest and Disease Control Assessment District**

## **ENGINEER'S REPORT**

**Expanded Programs  
Fiscal Year 2017/2018**



***May 23, 2017***

**Prepared for:  
County of Napa  
Board of Supervisors**

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## CERTIFICATES

The undersigned respectfully submits the enclosed report as directed by the Board of Supervisors.

Dated: May 23, 2017

TERRANCE E. LOWELL, P.E.,  
For Kristin Lowell Inc.,  
Engineer of Work

By \_\_\_\_\_

I HEREBY CERTIFY that the enclosed Engineer's Report was filed with me on the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

GLADYS COIL, Clerk of the Board, Napa County,  
California

By \_\_\_\_\_

I HEREBY CERTIFY that the enclosed Amended Engineer's Report was approved and confirmed by the Board of Supervisors, County of Napa, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

GLADYS COIL, Clerk of the Board, Napa County,  
California

By \_\_\_\_\_

## ENGINEER'S STATEMENT

This Report is prepared, as directed by the Board of Supervisors, pursuant to Article XIID of the State Constitution (Proposition 218).

The Napa County Winegrape Pest and Disease Control District (the "District") was formed under the provisions of Food and Agriculture Code §6292. The purpose of the District is to assist in the funding, through the levy of assessments on qualifying vineyard properties, of inspection, detection, prevention Pierces disease by the glassy-winged sharpshooter, and to address other pests and diseases that attack winegrape plants.

An estimated budget to fund the activities of the District is set forth in Exhibit B. The annual budget may increase or decrease depending on the amount of funding contributed by state and county sources to carry out the County of Napa's Workplans for the Glassy-Winged Sharpshooter, Vineyard Protection Program, Vine Mealybug, the Vine Mealybug Parasitoid Release Project and the Enhanced Detection Trapping/Research program. Funding for the improvements is financed through a property based assessment levied against each parcel consisting of one or more planted vineyard acres in the District area. A detailed description of the methodology for determining the special benefit assessment for each parcel is set forth in Exhibit C.

This report includes the following attached exhibits:

**EXHIBIT A:** A description of the proposed project.

**EXHIBIT B:** The estimate of the cost of the program to be funded.

**EXHIBIT C:** A statement of the method by which the undersigned determined the amount proposed to be assessed against each parcel, based on benefits to be derived by each parcel, respectively, from the program to be funded

**EXHIBIT D:** A map showing all the parcels of real property within the District.

**EXHIBIT E:** An assessment roll, showing the amount proposed to be specially assessed against each parcel of real property within this assessment district.



Respectfully submitted,

TERRANCE E. LOWELL, P.E.  
Engineer of Work

## **EXHIBIT A: PROJECT DESCRIPTION**

### ***INTRODUCTION***

In October 2016, the Board of Supervisors reauthorized the existence of the District through March 2022. On a yearly basis, the Board levies assessments on behalf of the District against real property with one or more planted vineyard acres to address the threat of the glassy-winged sharpshooter (GWSS), the vine mealybug and other potential pests of winegrapes. The assessments will finance the programs identified below.

### ***GLASSY-WINGED SHARPSHOOTER PROGRAM***

In March 2000, the Napa County Board of Supervisors approved a Workplan for addressing the GWSS in Napa County. The Workplan identified the major components required for developing and implementing an effective Napa County GWSS management program.

Since the Workplan's approval, the County has expanded the GWSS program. The current program provides for inspection of all plant material arriving in the county; the placement and inspection of increased numbers of traps to determine if the pest is present; and disseminating information to stakeholders. In addition, the Agricultural Commissioner has worked with the local wine grape industry and the California Department of Food and Agriculture (CDFA) to secure funding for the additional activities within the Napa County Workplan.

The County's mission is to continue to create programs to protect the local winegrape industry and economy. These programs are largely funded with State resources; however, funding of other program aspects, such as inspection of nursery stock from locations not known to be infested with GWSS and placement and monitoring of GWSS traps throughout the vineyard areas of the County, should continue to be funded with assessment revenues. To date, there have been no infestations of GWSS in Napa County.

#### **Detection Trapping**

Activities within this program area consist primarily in the placement and biweekly inspection of yellow-sticky panel traps. The County currently performs a base level of GWSS trapping utilizing existing staff, some of which is year-around at high-risk nursery/landscape facilities. The Agricultural Commissioner is dedicated to placing and inspecting GWSS traps, particularly in areas located in high risk locations. In FY16/17, Agricultural Commissioner staff placed and monitored 327 GWSS traps in urban, nursery, and other high risk areas, and 1,203 traps in vineyards as part of a program paid for by pest district and county funds.

Trapping will occur from July 1 through October 31, except for extended season trapping at high-risk nursery/landscape facilities. Other prioritized areas for trapping will be landscaped urban/residential settings and recently landscaped wineries and estates, with a concentration on recent plantings.

#### **Exclusion Activities**

Activities within this program area consist of year-round visual inspection of incoming commercial plant shipments, primarily at nurseries, home garden centers, landscape projects, and wineries/estates. Approximately 500 Blue-tagged shipments from infested areas will be

inspected. In addition, Napa County anticipates inspecting approximately 1,900 non-blue tagged shipments throughout the year as allowed under the Napa County GWSS Workplan and paid by Pest District assessments.

### **Education/Awareness Activities**

Education and Awareness activities consist of developing GWSS related educational materials for distribution and presentation to various community groups, individuals, schools, etc. The Deputy Agricultural Commissioner is responsible for overseeing the development of the materials for presentation and distribution. The Deputy Agricultural Commissioner also utilizes the services of a professional communications consultant to supervise a contract for creative design and outreach services such as new campaign development for print and website ads, and radio / tv spot creation and airing, etc. We participate in community fairs, winegrape trade shows, retail nurseries and farmer's markets.

### **VINEYARD PROTECTION PROGRAM**

The Glassy-winged Sharpshooter (GWSS) Vineyard Protection Program is intended to take up where the California Department of Food and Agriculture GWSS trapping protocols leave off—namely cropland trapping intended to detect GWSS populations before they can reach levels where eradication would be difficult or impossible.

The Vineyard Protection Program (VPP) consists of placement and periodic inspection of yellow sticky panel traps. The County currently performs a base level of GWSS trapping that is funded by the California Department of Food and Agriculture, and is limited to high-risk nursery/landscape facilities and seasonal trapping in residential areas. The VPP adds a strong cropland component to the trapping program already in place. Under supervision of an Agricultural Biologist IV, Ag & Standards Service Worker IIs will focus on deployment and monitoring as well as incidental coordination with cooperating growers to arrange access to vineyards. Program components are subject to change due to salary increases, available work force, labor contract changes, program modifications, etc.

Trapping will occur from July 1 through October 31. Traps will be placed primarily in vineyard areas, and when possible in higher risk locations within those areas. In some situations traps may be placed in areas directly adjacent to vineyards when access to a vineyard is difficult and when doing so will not reduce trap effectiveness.

### **VINE MEALYBUG PROGRAM**

In the Vine Mealybug Program, containing existing infestations is a priority. The following describes the scope of work to be performed under this program. All activities described will be conducted at levels deemed adequate to effectively delimit and contain infestations of VMB. Growers are expected to control their infestations and minimize their spread by employing all applicable integrated pest management (IPM) strategies recommended by the UC Cooperative Extension Viticulture Farm Advisor and licensed and registered Pest Control Advisors. As suspected infestations have continued to be identified, the program has moved away from a regulatory program of compliance agreements to a strategy of pest management by the use of the most up to date IPM strategies.

### **Detection Trapping**

Activities within this program area consist primarily of the placement and inspection of VMB pheromone delta traps. In 2017, as in recent years, trapping densities will be at 25 traps per square mile County-wide and serviced in September and October when the most VMB are usually trapped.

The traps will be piggybacked with European grapevine moth (EGVM) traps. The September deployment time frame works well for detection trapping staff as they will have completed the GWSS VPP trap deployment starting in July.

Additional activities will include microscopic inspection of county-placed and monitored traps as well as traps purchased, placed, and maintained by vineyard owners and operators, when brought to the Agricultural Commissioner's Office for inspection.

### **Pest Management Activities**

Containing existing and new infestations is a priority. Male VMB trap data is tracked using GIS technologies. An interactive map on the Ag Commissioner website allows growers to navigate to different areas of the County and see relative levels of VMB trap counts. Detailed site-specific maps with trap data are available to individual growers on request to aid them in detecting infestations at their vineyards. Growers will be instructed to train their vineyard workers to detect signs of VMB infestations and will be provided with information on VMB biology and life cycles. Growers will be informed of IPM treatment strategies to manage VMB based on the severity of the infestation including an emphasis on rotating insecticides to minimize the chance of developing insect resistance to the products. Sanitation of equipment used for vineyard management and harvest prior to movement off of an infested property is also stressed as well strategies to minimize movement of VMB by workers conducting field activities in infested vineyards.

### **Education/Awareness Activities**

The Agricultural Inspectors and the Deputy Agricultural Commissioner are responsible for developing the materials for presentation and distribution. Training and outreach events will be scheduled at the Ag Commissioner's Office, at Pest District-sponsored seminars, at meetings sponsored by UC Cooperative Extension and with regional groups of growers that are managing VMB.

## **VINE MEALYBUG PARASITE RELEASE PROGRAM**

For fiscal year 17/18, the VMB parasite release program will be continued for a fifth year. The program was initiated in fiscal year 13/14. The release of *Anagyrus* wasps will be done at approximately 140 sites throughout the County at sites identified by the detection trapping program and at infestation sites identified by growers. Following the releases for the past four years, Ag Commissioner staff has returned to vineyards and found evidence of parasitism of VMB by the wasps. The objective of the releases is to attempt to build a population of parasitic wasps in vineyards infested with VMB. The releases are not expected to provide significant levels of VMB control. Growers are encouraged to release additional wasps on their properties as a part of an overall integrated pest management strategy.

Release of the wasps will be conducted by Agricultural Commissioner staff and will occur in July 2017 and again in May 2018. Growers will help to identify locations of infestations within vineyards to help pinpoint the release sites. The release sites will be mapped.

## ***SENTINEL TRAPPING PROGRAM***

The purpose of a sentinel trapping program (Enhanced Detection Trapping / Research) is to target serious pests of winegrapes not known to occur or be established in Napa County, California, or the United States. Placing a base level of traps throughout Napa County provides the opportunity to detect infestations of new pests early before they become widespread throughout the County. Prior to 2009, the European Grapevine Moth was not known to be established in North America. With its discovery in Napa County in 2009, and 10 additional California counties, a multi-million dollar federal quarantine program was established. Napa County growers spent over \$50 million in treatment and quarantine costs in the successful EGVM eradication effort. EGVM was declared to be eradicated from Napa County and all of California in August 2016. Early detection of serious winegrape pests could potentially save millions of dollars in government and grower resources.

### **Target Pests**

Four lepidopterous pests were selected for the sentinel trapping program by reviewing information from the *USDA Grape Commodity-based Survey Guidelines*, the *Cooperative Agricultural Pest Survey (CAPS) for grapes*, *USDA's Tortricids of Agricultural Importance* and by consulting with CDFA, USDA and international authorities on grape pests. The four pests are Honeydew Moth (*Cryptoblabes gnidiella*), European Grape Berry Moth (*Eupoecilia ambiguella*), Grape Berry Moth (*Paralobesia viteana*), and Grape Tortrix Moth (*Argyrotaenia ljungiana*). Traps will be deployed at one trap per square mile in vineyard locations.

In addition to the four lepidopterous pests, traps will be deployed for the brown marmorated stink bug (BMSB). BMSB is a potential serious pest of winegrapes that adversely affects wine quality. BMSB was introduced to the Eastern United States in the mid-1990s and has since spread to various regions of the country. It has been found in Southern California since 2005. As of 2017, BMSB is established in nine California counties and has been detected in an additional eighteen counties. The pest is known to spread by hitchhiking on household belongings that are moved across the country or around the State. The purpose of a BMSB trapping program is to detect any populations of the pest at low levels and to inform grape growers of the presence of the pest. 30 traps sites will be selected throughout the county at select locations around moving and storage companies, campgrounds and RV parks, and larger wineries that receive the most visitors.



## EXHIBIT B: ESTIMATE OF COST

The budget below details the anticipated expenditures for Fiscal Year 2017/2018 to provide the services described above.

NAPA COUNTY WINEGRAPE PEST AND DISEASE CONTROL DISTRICT BUDGET	
<b><u>Workplan Expenditures:</u></b>	
District Share of GWSS Program Costs	\$99,045
District Share of Vine Mealybug Costs	\$59,150
Parasitic Wasp Release Project	\$48,503
Vineyard Protection Program	\$46,221
Enhanced Detection Trapping/Research	\$42,336
District Share CDFA GWSS Funding Shortfall	\$25,000
Outreach/Education	\$10,000
Transfer to Reserve	\$48,740
Engineer's Report	\$5,800
County Admin Costs	\$19,618
<b>Total Expenditures:</b>	<b>\$404,413</b>
<b><u>Revenues:</u></b>	
Fund Balance	\$38,549
Donation	\$0
<b>Total Revenues:</b>	<b>\$38,549</b>
<b>AMOUNT TO ASSESSMENT</b>	<b>\$365,864</b>

## EXHIBIT C: METHOD OF APPORTIONMENT

### ***General***

Proposition 218 requires that the County levy assessments according to the special benefit each parcel receives from the improvements (or activities to be funded by the District). Proposition 218 added to the state constitution Article XIID Section 4(a) which states in part:

*"The proportionate special benefit derived by each identified parcel shall be determined in relationship to the entirety of the capital cost of a public improvement...No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel... Parcels within a district that are owned or used by any agency, the State of California or the United States shall not be exempt from assessment unless the agency can demonstrate by clear and convincing evidence that those publicly owned parcels in fact receive no special benefit."*

Determining the proportionate share of special benefit among the parcels of real property within the proposed assessment district which benefit from the proposed activities is the result of a four step process: 1) defining the proposed activities; 2) identifying how each parcel specially benefits from the proposed activities; 3) determining the amount of the special benefit each parcel receives from the proposed activities; and 4) apportioning the cost of the proposed activities to each parcel based on the special benefit that each parcel receives from the proposed activities.

The GWSS, Vine Mealybug, and Enhanced Detection Trapping/Research programs are designed to only benefit those parcels with planted vineyard acres in an effort to reduce the amount of crop damage and revenue loss. Therefore, these programs provide only a special benefit to those parcels. The special benefit to parcels from these proposed services and programs exceeds the total amount of the proposed assessment.

### ***Special Benefit***

The special legislation, Food and Agricultural Code §6292 et seq., was enacted to provide assessment financing for the detection and prevention of the Glassy-winged Sharpshooter, the vine mealybug, and other potential pests of winegrapes in Napa County. These destructive pests and diseases pose a significant threat to the grape and wine industry. Napa County has a great economic interest in protecting its agricultural products from the pests and diseases. The winegrape pest and disease control measures provide the necessary detection and prevention activities to all planted acres to keep the Napa County wine industry vital. Without these measures, each vineyard could lose its crop due to bug infestation, and thus loss of revenue. Each vineyard parcel receives special benefit from these activities in that each vineyard operates without the threat of losing its crop. Since all planted vineyard acres will benefit equally from these activities each vineyard acre is assessed in like manner. That is to say, every planted vineyard acre receives the same benefit and thus, the same assessment amount.

### ***Assessment Calculation***

This legislation expressly defines that no assessment shall be greater than \$20 per planted vineyard acre. As previously discussed, each planted vineyard acre specially benefits from the identified programs. For Fiscal Year 2017-2018 there are 45,733 assessable planted vineyard acres. The amount of the assessment for the special benefit each vineyard acre receives is \$8.00 (\$365,864 divided by 45,733) per assessable vineyard acre.

## **EXHIBIT D: MAP OF DISTRICT**

A map of the District is on file in the office of the Clerk of the Board of the County of Napa. The lines and dimensions of each lot or parcel within the Assessment District are those lines and dimensions shown on the maps of the Assessor of the County of Napa, for the year when this Report was prepared, and are incorporated by reference herein and made part of this Report. The Assessor's maps shall govern for all details concerning the lines and dimensions of such lots or parcels.

## **EXHIBIT E: ASSESSMENT ROLL**

The attached table lists every parcel in the District by their respective assessor's parcel number, owner name, and assessment amount.