



SITE GUARD™ SERVICES

CONTINGENCY AND SUPPLEMENTAL SERVICES

for Public Health Mosquito Control Programs



SITE GUARD™ SERVICES OVERVIEW

SITE Guard™ services initially were created to provide communities and mosquito control programs [options for controlling container breeder mosquitoes that can vector the Zika virus](#). Yet they are designed with ample [flexibility to use as a supplemental service to an existing program](#). The name reflects the four core service areas: Surveillance, Inspection, Treatments and Education.



[Pricing is à la carte](#) for each service, with value pricing available for bundled services and longer engagement. Products used in services may be provided by you or through Clarke.

All SITE Guard protocols are [in line with International Best Practices](#).

Surveillance

Risk-Assessment
Operational Map

This is created using key indicators such as demographics, ports of entry, etc., to help identify high risk breeding sites or transmission areas.

Resistance Mosaic Map

If you think you may have resistance in your area, bottle bioassays from multiple locations can be done to help determine if resistance is affecting your adulticide program efficacy.

Traps

Species and purpose appropriate traps, such as BG Sentinel, ABC or Gravid traps, will be set and monitored for vector presence and/or population levels.

Lab Evaluation

Clarke conducts species identification as desired and will test for virus presence.

Inspection

This service is specific to areas with *Aedes aegypti* or *Aedes albopictus*.

Inspect private properties and other relevant public spaces for container breeding mosquitoes.

Two-person service crews will go **door-to-door within the Biology Block™** of a confirmed or suspect human case address.

Larval inspection & source reduction at each residence.

- » Record source reduction (empty standing water where possible, turn over items that could hold water) using mobile devices for real-time record keeping and reporting
- » Post project inspection report for the community



BIOLOGY BLOCK™ >>

A Biology Block™ refers to the complete block of homes in immediate proximity to where a human case is reported. Container breeders, in general, will move about from house to house, if needed, but will not cross a street, which serves as somewhat of a natural barrier to them.

Treatments

Adult Control — 2 levels

1. Human case or local transmission:

- » Property inspections within a one-eighth mile radius of human case
- » Truck ULV applications with Duet® every 2- to 3- days over a 10-day period
- » Duet's benign agitation characteristic plays an important role when controlling primarily day-biting species
- » Aerial adulticide treatments based upon number of human cases

2. Travel human cases only or adults found upon inspection:

- » Backyard ULV with Duet® adulticide
- » Barrier treatment

Larval Control Treatments

- » Using only **residual products:** Natular® Granules & Tablets
- » Treating containers or bodies of water that can hold water upon a rain event

Pupaicide Control

- » Treating containers or standing bodies of water that have pupae

Education

Public Relations Assistance
FREE

Professional media training and support is available to all SITE Guard™ customers. This includes remote and on-site assistance.

Community Engagement Kits
FREE

The purpose of these kits is to educate and engage residents in controlling mosquitoes in and around their own homes. Two kits are available: One for areas where *Ae. aegypti* and *Ae. albopictus* are present (**Zkit**), and one for everywhere else (**EKit**).

- » An online portal allows you to edit each of the kit elements, customizing to give your organization recognition. Once confirmed, Clarke produces and ships to you within a week.
- » Banner stand for use at product distribution sites
- » Prepared news releases, social media posts — all downloadable and editable
- » Zika infographic
- » Door hangers and community handout pieces (bi-lingual) (charges may apply on large quantities)
- » Interview tips and speaking points
- » FAQ's

SITE GUARD™

INCLUDED SERVICES

The following services are provided free to customers when SITE Guard™ services are actively being employed.

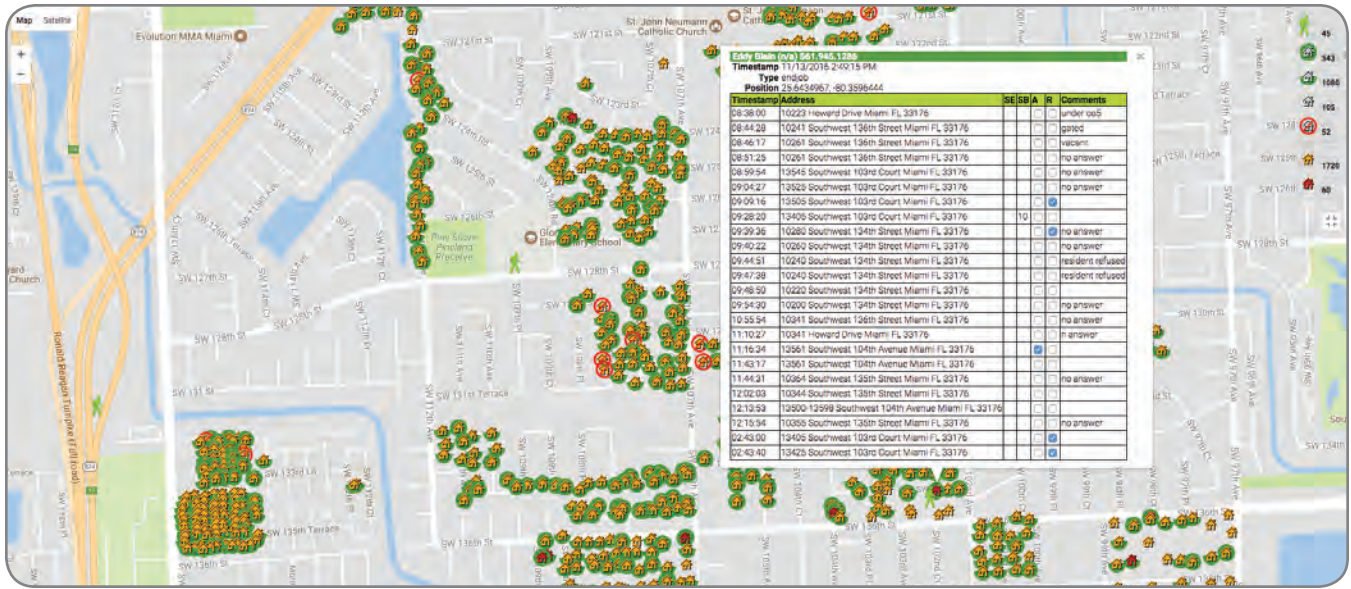
Free Real-Time Data Collection and Service Tracking

Clarke utilizes a proprietary data capture and service tracking system to enable customers to monitor service activity in detail via a web link. More detailed reports are provided daily or weekly, as desired. NPDES required data is also captured and provided upon completion of engagement.



REAL-TIME MAP >>

This is an actual shot from work done in Miami in 2016. The walking person icon indicates a two-person crew moving between sites. Properties display a unique icon once inspection is complete, offering a visual indicator of completed work.



SERVICE DETAIL >>

Easily review a summary of work by neighborhood, by service crew.



ZOOM >>

Zoom capability with real time tracking lets customers click on any inspected property to see details of what was done.

SITE GUARD™

DETAILED SERVICE SUMMARY

The following chart summarizes all supplemental SITE Guard™ services available to communities and mosquito control programs.

AREA	SERVICE DESCRIPTION	UOM
SURVEILLANCE		
Traps	BG-Sentinel Trapping Trapping adult mosquito with BG-Sentinel Trap(s) to confirm presence of adult <i>Aedes aegypti</i> and <i>Aedes albopictus</i> mosquitoes. The service includes surveillance reports of mosquitoes trapped.	Trap Night
	ABC Miniature Light Trapping Trapping adult mosquito with ABC Light Traps to understand makeup and mix of mosquito species in area.	Trap Night
Operational Mapping	Operational Mapping Development of surveillance, larval and adult control maps for the implementation of community program services. The project scope and contract price for a community program is determined and calculated by the map units (number of sites, acres, catch basins, spray miles, backpack barrier miles, etc.).	Per Square Mile
INSPECTION		
Inspection Source Reduction	Door-to-Door Inspections The ability of Zika to be transmitted by both humans and container-breeding species makes door-to-door canvassing essential to manage the risk. <ul style="list-style-type: none"> » CDC acknowledged protocol. » Two-person crews assigned to canvas target areas, inspecting for larval breeding sources in front and back yard, treating as appropriate (larval, adult and/or barrier), leaving educational information with homeowner. 	Week Increments
Larval Site Inspection	Larval Site Inspection Inspection of potential larval sites outside the designated treatment area. Larval samples will be taken in each site and include the following services: <ul style="list-style-type: none"> » Identified to species » Number of larvae per dip recorded » Parius computer system and hand-held PDAs will be utilized to record larval site inspection activities. » A post project inspection report will be prepared for the community. 	Larval Site
TREATMENTS		
Larviciding	Hand or Backpack Equipment Liquid Larviciding Larviciding with hand or power backpack equipment with Vectobac WDG at the rate of 0.5 pounds per acre of habitats found developing larvae during inspection for residual control.	0.25 Acre
Larviciding	Wide Area Truck Turbine Spraying Truck mounted Buffalo Turbine spraying of a community spray route with VectoBac WDG at the rate of 0.5 pounds per acre. GPS technology records operational coverage and provides post-mission reports for documentation.	Mile
Larviciding	Larviciding with Natular® G30 applied per 1/10 of pound	0.10 lb

AREA	SERVICE DESCRIPTION	UOM
Larviciding	Hand Larviciding with Natular® DT (each tablet applied)	Tablet
Larviciding	Hand Larviciding with Coco Bear (each oz. applied)	Ounce
Larviciding	Catch Basins with Natular® T30 (per tablet applied)	Tablet
Larviciding	Catch Basins with Natular® XRT (per tablet applied)	Tablet
Adulticiding	Wide Area Truck ULV Spraying Truck ULV spraying of a community spray route with Duet® Dual-Action Adulticide (where registered) at the dosage rate of 0.64 fluid ounces per acre. GPS technology records operational coverage and provides post-mission reports for documentation.	Mile
Adulticiding	Wide Area Truck ULV Spraying Truck ULV spraying of a community spray route with MosquitoMist™ (where registered). Two at the dosage rate of 0.71 fluid ounces per acre. GPS technology records operational coverage and provides post-mission reports for documentation.	Mile
Adulticiding	Wide Area Truck ULV Spraying Truck ULV spraying of a community spray route with MosquitoMaster™ (where registered) at the dosage rate of 1.42 fluid ounces per acre. GPS technology records operational coverage and provides post-mission reports for documentation.	Mile
Adulticiding	Backyard ULV Spraying Duet® Dual-Action Adulticide (where registered) via handheld/backpack ULV spraying per ¼ acre house/site applied at 1.28 ounces per acre (high rate).	1/4 Acre Site
Barrier Treatment	Backpack Residual Barrier Spraying Backpack barrier applications with Flit™ 13.3 EC (where registered) (mixed at 1:24 dilution — 0.5% emulsion) per gallon applied for residual control of adult mosquitoes in harboring areas, or for community special events.	Gallon
EDUCATION / CONSULTING		
Public Relations	Public Relations Assistance Professional media training is available to all SITE Guard customers. Webinar training is free, on site will be quoted at a day rate. In addition, public information announcements, news releases, service and pesticide product fact sheets, community education pieces, public communications guides, citizen Q & A responses are free at www.clarke.com	Per Defined Project
Community Engagement	Door-to-door distribution of product and support material Door-to-door distribution of Natular® DT Consumer Packs to residents with educational and product use material.	12pk — Card
Consulting	Mosquito Control Advisory and Planning Services If you have a need for any area of mosquito control expertise, short or long term, Clarke can provide functional area knowledge experts to help fill the gaps (e.g. general program planning, surveillance, operational efficiencies, field trial execution).	Per Engagement
TESTING		
SAM Susceptibility Assessment Mapping	SAM™ (Susceptibility Assessment Mapping) can be extremely valuable in understanding the performance of different adulticide formulations within your district. Clarke will collect eggs and/or larvae from wild caught mosquitoes across a grid of sites in your district or target treatment areas. Samples will be sent to independent labs at the USDA in Gainesville, FL for bottle bioassay testing with the formulated adulticides of your choice to determine susceptibility status by species, by site. The following services are included: <ul style="list-style-type: none"> » Joint trapping site grid determination » Collection of eggs and/or larvae from the natural population at each selected site » Coordination of bottle bioassay testing with USDA, Gainesville » Reporting of results 	Pricing dependent upon number of sites, species and products tested.



*Making communities around the world
more livable, safe and comfortable.*

The World Needs



Mosquito Control

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Clarke is a public health company that makes communities around the world more livable, safe and comfortable by pioneering, developing and delivering environmentally responsible disease prevention and habitat management solutions.

In 2008, Clarke founded The Clarke Cares Foundation, a non-profit created to provide disease prevention support for communities with critical needs.

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