

# City of Brookings, SD

## Mosquito Prevention and Control Plan

The City of Brookings' Mosquito Control Program is integrated within the Street Department.

Our Mission is to control mosquito larvae within the City of Brookings and the outlying areas. This includes approximately 12 square miles in the city and two square miles in the county (1-mile buffer on the north and south sectors). Our goal is to keep the nuisance problem (and now the West Nile Virus threat) to as low a problem as humanly possible. This is done through identification, mapping, and treatment (larviciding) of potential mosquito breeding grounds such as standing water, tall slough grasses, wooded areas, bike paths, walking trails, soccer fields, softball fields, drainage ditches, tire piles, and catch basins.

CDC and CO2 light traps are used for monitoring mosquito populations and establishing a threshold for adulticiding. The traps are circulated along high traffic areas such as city parks, bike trails, softball fields and other potential mosquito habitat and harborage areas.

Locations of larval and adult mosquito populations and breeding sites are recorded on paper maps (we do not have a GIS program as of yet). All control efforts are recorded by date, time, chemical used, wind direction, wind velocity, etc.

### Source Reduction

We are continually improving drainage in our geographic area by reshaping right-of-way ditches, and filling low land areas. The Street Department works cooperatively with the Brookings Municipal Utilities Department by contracting their sewer vacuum truck to clean culverts and catch basins.

The Brookings Regional Landfill holds an annual Spring Clean Up for Brookings residents. Labor and equipment are pooled from several city departments, including the Street Department.

The Street Department provides public education by distributing mosquito control literature regarding eliminating back yard breeding sites such as cleaning rain gutters, swimming pools, tires, and flower pots. Advertisements are also placed in local newspapers.

### Larval Control

Methods used for larval control are dipping for larva, spraying standing water, treating remote wetlands with briquettes or pellets, and treating catch basins with pellets to control breeding sites.

### Chemicals

A dipper is used to take samples of water to look for mosquito larvae. When mosquito larvae are found, a chemical called Abate 4E insecticide is used to treat the water to kill the larvae.

Also used is a briquette that is attached to a piece of Styrofoam with a weight that allows it to float in sloughs and remote areas of water. The briquettes are advertised as a 150-day treatment; however, they actually treat the water for 30 to 40 days. The briquettes cause the adult mosquito to be unable to reproduce.

Floating donuts are used in remote areas to treat drainage areas and culverts. The donuts are good for 15 to 20 days and are used to disable the mosquito's reproduction system.

### Control of Adult Mosquitoes

The trails and parks are treated with Insectrin X, as needed, with a Mist Blower for a barrier treatment. Other areas are treated similarly before any community event when traffic is high. All pesticides are used strictly according to the product label. The chemical TEMPO is used when food vendors will be present.

## Certification and Staffing

In 1971, our Mosquito Control Program consisted of one full-time and one part-time employee. In 1993, the program was increased to two full-time employees who are assigned 97% to the program from April through October.

Mosquito control personnel attend annual recertification classes, attend mosquito control seminars, and work closely with Mike Catangui, Extension Entomologist, SDSU and Jim Wilson, Extension Pesticide Ed. Coord., SDSU.

## Information on West Nile Virus

Information regarding the West Nile Virus may be obtained from the following sources.

### **SD Department of Health**

615 East 4th Street

Pierre, SD 57501

PHONE: (605) 773-3737, or

1-800-592-1861

Website:

[www.state.sd.us/doh/WestNile](http://www.state.sd.us/doh/WestNile)

### **SD Cooperative Extension Service**

Jim Wilson

Extension Pesticide Ed. Coord.

(605) 688-4752

### **South Dakota State University**

Mike Catangui

Extension Entomologist

(605) 688-4603



**PREPARED BY  
CITY OF BROOKINGS, SD  
STREET DEPARTMENT**

125 7th Avenue

Brookings, SD 57006

Phone: 605-692-2016

Fax: 605-697-8676

Email: [street@cityofbrookings.org](mailto:street@cityofbrookings.org)